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Rock Products and BUILDING MATERIALS

INCORPORATING DEALERS BUILDING MATERIAL RECORD

Volume XIV. CHICAGO, ILL., AUGUST 22, 1914. Number 8.

SPECIAL FEATURES OF THIS NUMBER

TROY Reversibles on the Elmdorf Estate near Lexington, Kentucky

One Troy Train Doing the Work of Eleven Teams at Less Than Half the Cost Per Ton Mile

With such results no one can question why Mr. J. M. Henry, the Assistant Highway Engineer of Fayette County, says of this train: "I cannot commend its work too highly." He further adds that on the long haul of three miles the work was done far more satisfactorily than with teams, and all stone dumped just as it was wanted.

And this is not an extraordinary performance of Troy Trains. On the contrary, every Troy Train installed on a big hauling job, **and kept moving,** has cut hauling costs over 50% and often as much as 80%. And, besides the hauling saving, a Troy Train is always in readiness. It never holds out for higher pay, and its presence on the job has a marked moral effect on the price of hired teams.

Troy Reversibles

handle anything from sand to paving brick in the dump wagons, up to telegraph poles on the platform trucks. They follow in the track of the engine under any conditions, and never need be turned around, as they run equally well in either direction. This feature is of great value in road building for Troy Trains can be backed right up to the finished road.

Troy Reversible Spreader. This spreader is most simply operated; one man can dump a whole train. It will spread the load from 2 to 18 inches in depth, or dump it entirely in one spot. Absolutely reliable —simple and effective.

Let us tell you of the economical service that 250 of these trains are giving today—not only on road-building, but on a hundred other big hauling jobs—We'll send you some interesting comparative data that shows what many concerns have accomplished—how they are hauling materials at from 4 to never more than 10c per ton mile. Compare these records with your own—You'll investigate Troys.

Get our Hauling Book No. 8—if you want to know how to make your hauling costs go twice as far.

The Troy Wagon Works Co.

Second St., TROY, OHIO

Troy Reversible Platform Truck for hauling Brick, Cement, etc. This truck has a capacity of 10,000 lb. on a platform 12 ft. long and 6 ft. wide. Platform is 4 ft. from ground, stakes 23 in. above platform. Also made with extension platform.

Rock Products and BUILDING MATERIALS

INCORPORATING DEALERS BUILDING MATERIAL RECORD

Volume XIV. CHICAGO, AUGUST 22, 1914. Number 8

PUBLISHED SEMI-MONTHLY.

DEVOTED TO

Quarry Products, Cement, Lime, Plaster, Sand and Gravel, Clay Products and Building Specialities—Fireproof Building and Road Construction.

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Just pay up all the little bills first and see how it will help.

Firm and upward tendency of Portland cement makes a strong and confident feeling in the trade.

Cost of hauling road material per ton mile would be more to the point than such a flock of elaborate papers devoted to various ideas about topping.

Opening of the Panama Canal to traffic last week not only supplies the navigable link between the world's two most important bodies of water but it makes a new map for the commerce of the world.

July was the biggest business month of history with many of the building material establishments, and it looks very much like a bumper August as well. All of this in spite of the foreign war jingo.

Sand washing establishments report increased tonnages, although the building season is a little off. The value of clean sand in concrete mixtures and mortars cannot be overestimated, and is so recognized at last.

Co-operation is in the air. Even political Washington is working shoulder to shoulder with business organizations to provide for the new merchant marine, and otherwise take care of the new era of industrial prosperity just being launched.

Fire resistance of concrete was again demonstrated at the recent Salem (Mass.) conflagration. There was only one concrete building; it was the only thing saved, and practically undamaged. If all the buildings had been concrete there would have been no conflagration. Selah.

Cleveland has the biggest concrete engineering job of 1914, in her new water purification plant. The figures by tons or cubic yards are too big for comprehension.

When the office is hot and dusty and both driver and team are tired and sweaty, just think how much better that is than wet and muddy and cheer up as you hand out the load ticket.

By far the worst blot upon American civilization is the system of willful destruction of estimated overproduction of foodstuffs practiced by shippers to hold up fictitious prices. It is at the root of the high cost of living, and a crime against humanity. It was high time the Attorney General got busy.

The dealer in building materials is an indespensible factor in every organized community and the market upon which he takes business has got to be conceded to him under terms that will support his establishment and earn a good interest upon the capital invested. It should not be a difficult task for him to secure such recognition.

Plasterers are blind to their own best interests in the discriminations they make against metal lath and plaster board. Here are the most important improvements that their line of work has ever known. We had to make them like hydrated lime at first, but they have now forgotten the other kind—all but the fossils. Only time and death will cure them.

In the matter of looking for new uses of lime we are constrained to suggest that a healthy revival of one of the oldest uses would not be at all amiss. Whitewash used to be and could yet be made the cheapest, but most attractive preserver of surfaces, for fences, barns and every type of wooden and masonry building. Now that hydrated lime is available in every market, the chances of burning the lime in the process of mixing is practically eliminated, for hydrate will ripen over night and make perfectly durable whitewashing material, without any risk of disappointment. At least 100 cars of hydrate are needed now in every county where we happen to be acquainted. Any enterprising lime salesman can surprise himself as well as please his customers by a little intelligent demonstration that will make a constant demand for whitewashing lime. It is another place where hydrating lime makes it more valuable.

Heavy shippers of Chicago and the Illinois valley are taking a hand in the matter of the rehabilitation of the Illinois and Michigan canal to provide an adequate water route for freight traffic between Lake Michigan and the Gulf of Mexico. With this kind of business backing, the practical water route can easily be provided in one year's time. In its present state of badly needed repairs, the canal carries about as much freight as one single-track railroad. When repaired and improved it will carry more than 50 times its present traffic. The railroads could well afford to pay for the canal repairs and improvements for the sake of being relieved of the burden of low-class bulk freight that they could force to the waterway. With the opening of the Panama canal the repair of the Illinois waterway becomes paramount, if the cities of the lake region expect to hold their present commercial position, for a radical readjustment of trade routes is certain to occur, and there is no other feasible route across the continental divide.

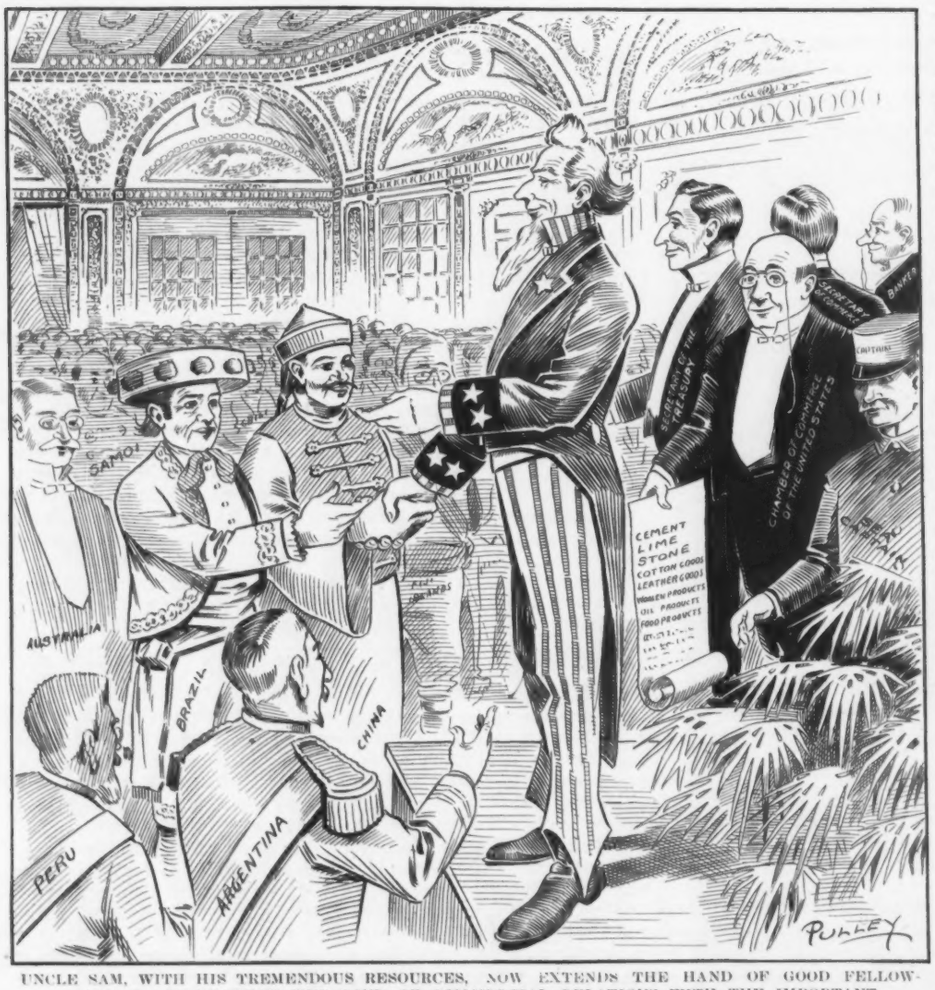
New Era of Prosperity Born

In these days of wireless telegraphy of two kinds, the Marconi and that sort which is easiest to get, the sterling judgment of the conservative business man is more or less disturbed by the expressions of superficial talkers whose chatter is for the most part reflections from the careless printed ideas of irresponsible reporters in the public press. In the absence of news, the merest shreds of rumor are served up in the most exciting terms and always lighted with colors of expression to make the papers sell fast.

The telegraphic facilities of Europe are entirely in the hands of the various governments at war, with commissioned officers in charge. In case of neutral countries, the censorship of reports is quite as rigid, for the non-transmission of information is the first specification of the technique of neutrality. One is therefore bound to conclude that practically all of the material that finds its way into print these days is made up from the "wireless" of the second classification. By far the most of it is unworthy of attention, much less the credence of any well balanced business man, and it is quite true that the most broad-gauged men of big caliber take little note of the ripples which the other kind of men are magnifying foolishly into tempestous waves threatening the financial and business edifice of this country. Nothing could be more absurd than this latter assumption, as a brief review and analysis must develop.

We know from unquestionable sources in our own country that during the past several months nearly all of the American securities held abroad have been systematically cashed in to get the ready gold, and just as soon as there appeared a disposition to overload Americans with foreign securities a halt was promptly called by the co-operation action of our sentinels upon the financial watch tower, and every banker, great and small, every business man worthy of being considered as a representative in his line, stepped up promptly to endorse the measure of breaking off financial intercourse with the whole of Europe, as well as that of preventing private individuals in this country from sending their own money away foolishly to foreign countries because of family ties or some other sentimental argument.

Few of the wars of history have been justified or had any reasonably good objective. In the present European irruption, while we have practically no facts or arguments before us, it could without doubt have been easily avoided. At best it is a needless waste of human life and accumulated wealth. The watchfulness and sound judgment of our financiers has kept the business of the country in the most favorable condition possible under the circumstances. In fact, through this action we are practically in a position to take a step forward and broaden the horizon of our financial and industrial activity by opening up traffic with the present abandoned markets of the world. No other country is prepared for such an undertaking, and the only reason that we can do it is because our bankers and our business men are in harmony with the resources to back up co-operation.



UNCLE SAM, WITH HIS TREMENDOUS RESOURCES, NOW EXTENDS THE HAND OF GOOD FELLOWSHIP TO STRENGTHEN THE BOND OF COMMERCIAL RELATIONS WITH THE IMPORTANT TRADE CENTERS OF THE WORLD.

We know that beyond question a big conflict of arms is just beginning, in which all of the first-class powers of Europe must be involved, directly or indirectly. No idea of the formation, direction or plans of the military engineering problems will be announced or developed for promiscuous observation and comment until after the war is over and settled.

But the experience gained in the past will give us some reasonably certain parallels upon which to base very sound and sure deductions with regard to the present European conflict. The essential preliminaries and preparations for a battle of decisive character in all military operations consumes time in direct ratio with the number of troops involved. A decisive battle is described by the world's greatest military chieftains as one in which "more than 50 per cent of the total fighting strength of one of the belligerents is captured, disarmed or otherwise incapacitated from reorganizing in the field again during the campaign." Now, several of the great powers involved at present have available armies amounting to two or more millions of men, so that a decisive battle by the definition has no precedent in history. To capture or otherwise put out of the field one million men could hardly be the result of a single engagement. The sheer tonnage of supplies, provisions and ammunition could not be concentrated and supported without an infinite amount of detail consuming much time. It took about one year for the French to prepare for Waterloo in 1814-1815, the allies were more than three years. But measuring by the number of troops involved, that historic event sinks into insignificance.

No Decisive Battle This Year.

It is certain that no battle of importance will be fought in 1914, very probably not sooner than the early winter of 1915, and this would seem to discount very liberally for auto trucks and all the other modern improvements in equipment. The strife could be brought to a close sooner than this by the route of mediation and compromise without a decisive battle; but this is not probable, as there is no precedent in history for such a course, and there has been no change in human nature since time began. While we hardly know how to measure the vast accumulations of wealth in Europe when the channels of credit and finance are open and undisturbed, it becomes much simpler when financial intercourse is cut off short, the credit of belligerents withdrawn, and the gold surplus taken together with total internal resources become the only available assets.

Europe Will Be Bankrupt.

The five giant powers now believed to be in full motion could maintain their war footing for three years, by which time the waste of war would leave them practically bankrupt, possibly beyond recuperation within one or two generations. From this condition Russia must always be a possible exception, for she may come forward any time with those fabulous stores of gold that Napoleon went after but did not find. Even if the decisive battle comes in midsummer 1915 and peace is restored without a complete political reorganization of Europe, the present generation will never see credit restored and any commercial or industrial importance achieved. On the other hand, the present war is almost certain to result in an entirely new map of Europe, organized possibly upon new ideas of government borne out of the war itself. In this case it will take several generations to catch the heave of the sea, as they say when they launch a new ship. Anyway one looks at it, the same conclusion is necessarily reached—Europe will have to be considered in the bankrupt class for the next ten years.

We are well aware of the fact that the great world supplying industries throughout Europe have been abandoned indefinitely, and the commerce of all the belligerents has been withdrawn from the high seas and from the markets of the world. This can never be resumed or restored by those establishments that lately held this trade, because the

organizations under new conditions will not be in a position to dictate the credit policy of the world and support and maintain the same as they have done in the past. There will be another great wave of emigration from Europe. Canada west, Argentina and Brazil will promptly be filled up. This country will absorb its full quota, for the industrial responsibility has fallen to us, and our shores will consequently attract the skilled workers mustered out of the armies who will find their former occupations swept away.

Opportunity and the Panama Canal.

Industrial responsibility amounts at the present time to a business opportunity, for as yet these great United States of America are looked upon as a mere beginner for recognition in the world's commerce. Only the other day we opened the locks of our Panama canal to the traffic of the world. It places our mills and shops of the Atlantic seaboard states, as well as those of the Mississippi basin, in closer touch with the South Pacific and Far Eastern markets than the ancient ports of the old world. With the Panama canal we have made a new commercial map of the world.

The first steps have been taken by the route of purchase to acquire the first ships of our new merchant fleet. Big freighters of the Hamburg line are already reported as in process of sale, and numerous others will avail themselves of our new registry law.

Merchant Marine and Commercial Adjustment.

The American merchant flag will be hailed upon the high seas within the month, and Congress is working overtime to give us a maritime code that will make its existence possible and a success. We shall probably have to fight a naval war to secure its recognition and respect, but we have to rise and fight for the new responsibilities that are being thrust upon us along with this natural expansion of our industrial and commercial importance incident to geographical location and enterprising production.

The consular representatives from South America have already opend negotiations for the accommodation of banking exchange with this country, and the schedules of commodities to be interchanged will have to be adjusted so as to provide reasonable equities of trade. Our importers and merchants will have to take the wares direct, and consume the goods and products of those markets which take the output of our shops and mills.

To put over in such a rush the establishment of so important a change in the business balance of the world is no small undertaking. It calls for the thoughtful co-operation of all the active workers of the nation.

Co-Operation the Keynote of Success.

Our farmers may have to learn new crops that are wanted in the new markets where they are to be delivered. They had just as well now drop their gaze of hope from the bankrupt markets of Europe, as to ship their products without pay to find out the truth at great cost. Our mills will have to run upon the grades of goods and wares demanded in the distant markets. All and every part of the new era of American industrial and commercial expansion and prosperity calls for co-operation. The farmer, the merchant, the worker, the manufacturer, the shipper, the banker and, not the least of all by any means, the government have got to co-operate to bring to success the new-born babe of industrial supremacy.

There are no two ways about it; the opportunity is here. It is ours, today. We can improve and use it to our lasting benefit and profit, or pass it up amidst a scramble of mistrust and selfishness to bite off a big piece of profit right now.

We will have our merchant marine. It will be supported by an adequate maritime code. Our bankers will provide an exchange clearing house for the whole world. Our operators in every field of activity and the government will work together for the prosperity of the new era. If the labor element insists upon getting in the way of progress, their successors will be drawn from the disbanding armies later on, and they will be left high and dry, wishing they had been inclined to be good before it was too late.

BOOST FOR THE NEW ERA JUST BORN.

Burdensome Legislation.

Extracts from a paper delivered by James C. Jeffery before the National Association of Box Manufacturers' Convention at Detroit, Mich., Aug. 13-15.

I sometimes think that the curse of the American people is a mania for making laws on every conceivable and inconceivable subject, and before the laws themselves are given a fair test they are amplified, modified, supplemented and amended, until we come to a point in American business and finance where the whole commercial fabric of the nation marks time while our law-makers are in session.

I wonder if anywhere else in the civilized globe the prayer goes up, as it does here, "Let the lawmakers adjourn and give business a chance."

Today, the plain truth is that these federal legislators are not representing the people—they are passing laws that the people of the United States, as a whole, do not wish passed—they are attempting to regulate by legislation the private affairs of the individual and of the private corporation to an extent hitherto unknown and to an extent entirely unnecessary.

Amongst the English speaking nations, from time immemorial, there have been two classes of individuals—the law-abiding class and the law-breaking class. Today we have an anomalous third class—the individuals or the corporations who do not know whether they are breaking the law or not.

The Clayton bill is an attempt to regulate competition and destroy monopoly. Section four (4) of this bill makes it unlawful for a person engaged in commerce to sell commodities for use, consumption, or resale, on the condition that the purchaser shall not use or deal in the supplies or commodities of the competitor of the seller. In other words, you can't sell your products to John Smith at perhaps a lower price than to Tom Jones on consideration that John Smith buys all his boxes from you, though, of course, under Section seven (7) you are perfectly safe in doing anything you wish, if you are a member of a labor, agricultural or horticultural organization, and again, under Section eight (8), if you are wicked enough to engage in commerce by and among the several states (which I assume you are), the corporation, of which you are president, must not acquire stock in another corporation engaged in making the same product where you would lessen competition between your corporation and the one whose stock you acquire; and be careful of the iniquitous "tap line," for, under Section nine (9), you can only sell it when you are through with it to a common carrier, where there is no competition between the "tap line" and the common carrier; apparently, if both are in the business of hauling lumber from a common point, you are forbidden to sell out, and furthermore, you may not be a director or an officer of a common carrier, and have any stock interest in a corporation with which you do more than $50,000 a year business and buy from that corporation without competitive bidding after a public notice in a newspaper.

The twin sister to this interesting bit of legislation is the Covington bill, introduced by Representative Covington of Maryland. The bill, as originally introduced, was practically ripped to pieces, but let us take a look at it as it now stands as reported by Senator Newlands with amendments.

The striking feature of it is the remarkable inquisitorial powers that are conferred upon the Federal Trade Commission which, by Section one, it creates. This Trade Commission is to be composed of five members and upon its organization the Bureau of Corporations, and the offices thereof, are practically merged in it. Section three defines the powers of this commission, which may be summed up as follows: To investigate from time to time, and as often as the commission may deem it advisable, the business, financial condition, conduct, practices and management of any corporation engaged in commerce, and its relation to other corporations, to individuals, associations and partnerships. Section B gives the Trade Commission the power to require a corporation to furnish it information, statements and records concerning its business, financial condition, conduct, practices, etc., and to require the production for examination of all books, documents, correspondence, contracts, memoranda, or other papers relating to or in any other way affecting commerce in which the corporation is engaged.

Section D, to my mind, is really the vicious part. It is as follows: The commission shall have power to make public, in the discretion of the commission, any information obtained by it in the exercise, power, authority and duties conferred upon it by this act, except insofar as may be necessary to protect trade processes, names of customers and such other matters as the commission may deem not to be of public importance.

The next few sections of the act describes still further the duties of the commission and the relationship of that body to the Department of Justice and the courts.

Section five announces that unfair competition in commerce is unlawful and empowers the commission to prevent corporations from using unfair methods of competition in commerce, all of which power is now and has been for 20 years in the courts of the United States and in practically all state courts.

Section seven is another instructive piece of work. It is, in substance, as follows: That any person, who shall willfully destroy, alter, mutilate, or remove, authorize, or assist in and be privy to the willful destruction, alteration, mutilation, or removal of any book, letter, paper or document, containing an entry or memorandum relating to commerce, the production of which the commission may require under this act, etc., shall be deemed guilty of a misdemeanor and shall be punished by a fine of not exceeding $5,000 or imprisonment not exceeding one year. In effect, this section could have been materially shortened and time saved, if it had simply said, "Do not destroy anything you have with printing or writing on it," for, apparently, under the preceding sections the commission may require and have power to get before it everything except the office cat.

The other bill that I referred to is the Rayburn bill, which has some good in it and considerable that is not. It is aimed to prevent the over-capitalization, or the watering of securities of common carriers, and confers upon the Interstate Commerce Commission the power of deciding whether a common carrier shall increase its capital stock or bonded indebtedness. In view of some of the recent exposures, let us call it, of injudicious and unwise financial management, I believe that the world at large would have more confidence in the $8,600,000,000 capital stock, and $11,000,000,000 bonds of American railroads, were some practical and useful law passed providing for the supervision of the disposal of the investor's money.

BANK EXPERTS IN SOUTH AMERICA.

The National City Bank, the leader of Chicago's financial institutions, has a corps of exchange experts in South American business centers arranging the avenues of trade to accommodate the new map of the world's commerce. Branches of this great Chicago bank will doubtless be established in Buenos Aires and Rio de Janeiro at once, and at other centers as fast as the needs are developed. Chicago manufacturers are thus provided with the first avenue to the abandoned markets. One of the big banks of Boston is in the same endeavor. New Orleans bankers are making similar arrangements, while the New York group is working upon a world's clearing house plan.

WITH YOU and ME

K. P. Grahn, president of the Louisville Fire Brick Co., is on a vacation trip to northern Michigan. He will be back in Louisville the latter part of August.

Mr. C. E. Taylor, formerly connected with some of the most extensive lime operations in the east, has gone to Manistique, Mich., as superintendent of the White Marble Lime Co.'s plants at that place.

M. D. Brown, of the Gary Granite Brick & Stone Co., Highland, Ind., is spending a little time in Chicago. His mission is to educate architects and builders on the advisability of using sand-lime brick for building purposes.

G. T. Ratley, of Carthage, Mo., was in Guion, Ark., June 10, to organize a company to operate a sand plant that has been idle for some little bit. The very best qualities of glass sands abound in the White river country.

R. B. Tyler, president of the R. B. Tyler Co., which operates a crushing plant at Ducker's Station, Ky., has been in Middlesboro, Ky., for about ten days on a vacation trip. Middlesboro is in the heart of the Cumberland mountains and is one of the best mining towns in the state.

William B. Irvine, president of the Knickerbocker Lime Co., Philadelphia, was recently appointed by Governor Tener of Pennsylvania as delegate to represent Pennsylvania at the seventh annual convention of the Atlantic Deeper Waterways Association, to be held in New York September 22 to 26.

F. A. Sampson, formerly sales manager for the Union Cement & Lime Company, of Louisville, Ky., is taking to the insurance game like a duck to water. He is connected with the Germania Life Insurance Company's Louisville office, and said that although he may go back into the building supply business some time, he likes the new line very well.

Mr. J. G. Waters, the retired building material dealer of Washington, D. C., declares that he keeps himself young by getting out into the fresh air as much as possible. His daily habit of driving through the roadways of the nation's capital secures for him this fresh air—and a little sunshine. It is evidently the sunshine which makes him so cheerful.

H. H. Frazier, sales manager of the R. B. Tyler Company, leaves Louisville, Ky., next week for a week's trip to Pittsburgh, Pa., where he will spend considerable time at the plants of the Martin Brick & Tile Company and the Kittanning Brick & Fire Clay Company, where he will give additional study to their products and make arrangements for the filling of orders from the R. B. Tyler Co.

Mr. George D. Elwell, president of the New York State Builders' Supply Association and president of the Newton Brick and Supply Co., Albany, N. Y., has just returned to his home after a brief but interesting trip in a few of the central West cities. He spent practically all of his time among builders' supply men and has formed the opinion that there is always some business to be had in these cities. Mr. Elwell reports that practically all of the men he saw stated that they were kept busy filling orders. When in Chicago "George" presented a healthy appearance. He said the trip had refreshed him and put him in trim for the active fall business which he anticipates is sure to come.

H. D. Jenkins, the energetic representative of the Sandusky Portland Cement Co. in the Chicago district, met with a painful though not serious accident three weeks ago, from which he has not yet fully recovered. While cavorting elfishly through the shallow beach waters of old Lake Michigan his

H. D. JENKINS IN THE TITLE ROLE, "DISASTERS OF THE SEA."

great toe crashed violently against a miniature Gibraltar—with eclate, as it were. It is whispered around that the "action" which followed immediately was sufficient to turn a movie star green with envy. Details of the combat were not forthcoming from Mr. Jenkins— that is, of any perspicuous nature. There were data aplenty supplied by Mr. Jenkins on the subject, but the same were obscured in such a haze of azure blue as to be unintelligable to the average listener. We are delighted to learn, however, that he will survive this sad catastrophe.

S. Hattory, an engineer for the Miike Harbor Works and the Mitsui Mining Co., of Tokio, Japan, which concerns have an output of one-third the total coal supply of Japan, is touring cities in the United States for the purpose of studying the use and value of reinforced concrete in mining work and for bracing in the harbor. According to Mr. Hattory, there is little or no concrete in use in Japan. Wood has proved of little value, white ants eating it away in a few months. Mr. Hattory has spent six months in Germany, two in England, and the last few in the United States, studying methods whereby the equipment of the companies he represents may be improved.

The Endless Chain—Co-operation.

Through the endless chain of co-operation, manufacturers and retailers of the United States have before them a tangible means of conserving the resources of this country during periods of money stringency.

In these days of European conflict, and a small degree of American hesitancy, there is no reason why American institutions should become embarrassed—and by means of the endless chain of co-operation they will not.

The links of this endless chain should be composed of the commercial interests of every city and town, so as to form a practical co-operation between the business men and the banks in financing the present crops and by a practical distribution of available funds would prevent uncertainty and discouragement among manufacturers, and likewise prevent the closing down of plants which reduces the consuming power of the laboring element.

By bringing the consumer into the plan of the endless chain, his co-operation will be received and he in turn will be induced to spend his money at home and thereby consume a certain percentage of the raw material as well as the finished product of home manufacture. A plan should be adopted between the manufacturers and customers to market a certain percentage of stocks on hand. Welding this chain and creating an endless effort to co-operate, should bring about a shoulder to shoulder army of sane men with commercial instinct to ward off the dangers of war and so satisfy our money and producing powers that commercial interests of this country will not be seriously affected by the present foreign situation.

The plan is to have business men of the different communities get together in conferences and discuss the propositions that are affecting them and through the spirit of co-operation so protect each other that business may go on unhampered.

The Western Paving Brick Manufacturers' Association will hold their annual meeting at Branson, Mo., beginning on the 3rd of October, and will combine business and pleasure by a pleasant outing.

Paul A. Jandernal has become the district sales manager of the Lehigh Portland Cement Co., with headquarters in the Greer Building, New Castle, Pa. The New Castle district covers western Pennsylvania, West Virginia and the major portion of Ohio. Mr. Jandernal is one of the best known salesmen in the Portland cement field. He is a veteran, although as yet a very young man. His service with the Lehigh Company represents a period of eight years and the dealers throughout the territory have learned to know him as "Jandy." He was born and reared a New Yorker and went out on the first surge of the wave of American Portland cement that went out from the New York and Philadelphia neighborhood to the western consumers. At that time he was a good looking "kid" and he had a way about him that nearly everybody liked. He can stand and listen to the troubles of the dealer whose horses have the heaves, or whose wagon has lost its tail gate and sympathize like he had lost his best friend, then jot down an order for two cars and take the train in five minutes. "Jandy's" get away is famous, for he has a record that he never left without taking something with him.

Usefulness of Commerce Commission to Supply Men

Retailers and Small Shippers Secure Prompt Recognition and Service When Appealing Direct to Interstate Body.

The firm of Ormond & Smith, of Quincy, Ill., have asked me the object of the Interstate Commerce Commission and how it may be used by the ordinary dealer. Their letter, together with my reply, follows:

Quincy, Ill., Feb. 5, 1914.

Elton J. Buckley, Esq.

If you think the matter of sufficient importance, why not tell your many readers what the Interstate Commerce Commission at Washington is for and how an ordinary merchant could use it if he had to. We all see the name Interstate Commerce Commission mentioned often in the papers, but few of us know exactly what it is for, or what we would have to do to take advantage of it if we thought some railroad was not treating us fairly. You can probably make it plainer.

Respectfully yours,

ORMOND & SMITH.

Briefly, the Interstate Commerce Commission is a sort of court, created by Congress, whose object is to see that railroads, railways and steamship lines doing an interstate business, i. e., running from state to state, behave themselves and treat everybody alike. The commission has power to reduce freight and passenger rates, if they are too high, forbid proposed advances in rates, see that rates are fairly adjusted between different points so that the shipper getting a short haul is not compelled to pay more than the shipper getting a long haul; prevent a railroad from giving one shipper or receiver a better freight rate than it gives another; compel railroads to provide proper facilities for unloading and delivery of freight, and so on.

Any small interior merchant, whose freight receipts are confined to shipments received from his jobber, has precisely the same right to complain to the Interstate Commerce Commission, if he has a grievance against some railroad, as the large merchant or manufacturer, whose freight transactions run into many thousands of dollars every year. And the commission will listen to him just as readily. The above outline of the commission's powers will suggest what sort of grievances against a railroad a shipper could have. Improper, excessive, unfair freight rates, relatively less to one shipper than to another, would be a very important grievance. Another would exist where a railroad, as a matter of regular practice, dumped freight off at a wayside station and left it there with inadequate protection. Still a third would exist where two railroads, natural competitors to the same section, refused to compete, but mulcted shippers along their lines by charging excessive rates. There have been many complaints by shippers at rules and regulations issued by the railroads themselves—complaints that they were unfair, oppressive, unduly favored one shipper or class of shippers, at the expense of others and so on.

There have also been many complaints because railroads have insisted on putting certain merchandise, when shipping it as freight, in a classification which would take a higher rate than the shipper thought he ought to pay.

The Interstate Commerce Commission will not, however, go into the matter of collecting freight claims. It has many times ruled that they are individual business matters between the railroad and the shipper, and that the shipper who cannot collect his dues from a railroad company should go into his own courts.

It would hardly be profitable or interesting to go deeply into the technical practice before the commission, but I should say something about how to prepare a complaint. The rule is as follows:

Complaints must be in typewriting on one side of the paper only, on paper not more than 8½ inches wide and not more than 12 inches long and weighing not less than 16 pounds to the ream, folio base, 17 by 22 inches, with left-hand margin not less than 1½ inches wide, setting forth briefly the facts claimed to constitute a violation of the law. Complaints may also be printed in the size designated in Rule XIV regarding briefs. The corporate name of the carrier or carriers complained against must be stated in full without abbreviations, and the address of the complainant, with the name and address of his attorney or counsel, if any, must appear upon each copy of the complaint. The complaint need not be verified (sworn to), but must be signed in ink by the complainant or his duly authorized attorney. The complainant must furnish as many complete copies of the complaint as there may be parties complained against to be served, including receiver or receivers, and three additional copies for the use of the Commission.

No freight shipper or receiver with a grievance against a railroad need employ an attorney to present it. If he follows the above rule, he can

P. A. JANDERNAL, SALES MANAGER NEW CASTLE DISTRICT LEHIGH PORTLAND CEMENT CO.

prepare and present it himself, and it will get precisely the same attention.

Here is a suggestion for the form of a complaint against a railroad or steamship company where an improper freight rate is being charged.

The form can be modified when the complaint is of a different nature.

Your Name
vs.
The ——— Railroad Company,
——— ——— Railway Company.
(Insert corporate title, without abbreviation of carrier (or carriers) necessary defendants.)

The complaint of the above-named complainant respectfully shows:—

I. That (complainant should here state occupation and place of business, also whether it is a corporation, firm or partnership, and if a firm or partnership, the individual names of the parties composing the same should be given.)

II. That the defendant (defendants above) named is a common carrier (are common carriers) engaged in the transportation of passengers and property, wholly by railroad (partly by railroad and partly by water), between points in the State of ——— and points in the State of ———, and as such common carrier (carriers)is (are) subject to the provisions of the act to regulate commerce approved February 4, 1887, and acts amendatory thereof or supplementary thereto.

III. That (state in this and subsequent paragraphs, to be numbered, the matter or matters intended to be complained of, naming every rate, rule, regulation or practice whose lawfulness is challenged, and also each point of origin and point of destination between which the rates complained of are applied.)

(Following this a paragraph or paragraphs should be inserted alleging that by reason of the facts stated in the foregoing paragraphs complainant (complainants) has (have) been subjected to the payment of rates of transportation which were when exacted, and still are, unjust and unreasonable in violation of Section 1 of the act to regulate commerce, or unduly discriminatory in violation of Sections 2, 3 or 4 thereof.)

Wherefore complainant prays that defendants may be severally required to answer the charges herein; that after due hearing and investigation an order be made commanding said defendants and each of them to cease and desist from the aforesaid violation of said act to regulate commerce, and establish and put in force and apply as maxima in future to the transportation of ——— between the shipping and destination points named in paragraph ——— hereof, in lieu of the rates named in said paragraph, such other rates as the commission may deem reasonable and just (and also pay to complainants by way of reparation for the unlawful charges hereinbefore described the sum of ———, or such other sum as, in view of the evidence to be adduced herein, the commission may consider complainant entitled to, and that such other and further order or orders be made as the commission may consider proper in the premises and complainant's cause may appear to require.

Dater at ——— ———, 19——

Nobody filing a complaint with the Interstate Commerce Commission need necessarily go to Washington to prosecute it. He may be able to have his evidence taken by deposition (before "a special agent or examiner of the commission, any judge or commissioner of any court of the United States, or any chancellor, justice, or judge of a Supreme or Superior Court, mayor or chief magistrate of a city, judge of a county court or court of Common Pleas of any of the United States, or any notary public, not being of counsel or attorney to either of the parties.") Of course the easiest of these officials to find is a notary public; notaries are everywhere.

In conclusion, I think I should say again that the Interstate Commerce Commission has jurisdiction only where a shipment, or the rate or practice complained of is between states, and thereby becomes interstate. In the case of a shipment between different points of the same state, or a rate, the complaint would have to be presented to the State Railroad Commission.

Link-Belt Co. Buys City Block.

The Link-Belt Co., Chicago, Ill., manufacturers of elevating and conveying machinery, have just closed the purchase of the block of land bounded by Stewart and Princeton avenues and Thirty-eighth and Thirty-ninth streets for a reported consideration of $95,000. The present plant of the company is at Thirty-ninth street and Stewart avenue opposite the property just acquired, which was the only property available to meet the expansion needs of the company. It is stated it was acquired, however, more for probable future needs than for immediate uses.

The property has a frontage of 550 feet along the north side of Thirty-ninth street and the south side of Thirty-eighth street, and 598 feet along the west side of Princeton avenue. The Pennsylvania road right-of-way lies to the west of the property, and the 15-foot strip belonging to the company lies between the acquired property and Stewart avenue. It contains 328,900 square feet, making the sale at the rate of 29 cents a square foot.

The RETAILER

Knowledge of Materials Valuable.

In order to properly handle and sell any line of goods, it is important that a complete knowledge of such goods be had by every member of the office and sales forces. How best to procure that knowledge has been a question to a few of the progressive builders' supply dealers of the country who have had a desire to make their men thoroughly efficient.

A number of dealers in various parts of the country have availed themselves of the knowledge of traveling salesmen who have the ability to describe in detail the merits and possibilities of the building materials they sell. By gathering their forces into one of the large rooms in their suite of offices, these dealers request the salesmen who have called to tell in an off-hand manner just what the materials are best suited for and what tests they have undergone successfully.

This plan is worthy of consideration by all building material dealers and should be tried out wherever the opportunity presents itself. If the first salesman makes a failure of the attempt to impart this information to your men, do not give it up as an impossible method of securing valuable information for yourself and your men. Some salesmen are able to tell in the most pleasing manner the merits of their materials to one person, but when there is a fair sized audience facing them, they become victims of stage fright and their voices fail them.

Another plan, and one that should be followed by every man engaged in business, appeals to us as worthy of adoption. It is to procure this information in printed or written form and let the men in the various departments read it at their leisure. This seems to be the proper solution of the question of gathering and disseminating information regarding the materials in the sale of which you are particularly interested. How and where to get this printed and written information is an easy question to answer. It is at this time that your trade publications become of the utmost value to you.

It is a well-known fact that progressive manufacturers of building materials all advertise their products in publications that reach building material dealers.

To procure printed and written information about building materials is an easy matter to the dealer who realizes the value of his trade paper. He reads not only the text pages, which tell of the various ways, both new and old, in which materials may be used, but he is equally interested in the advertising pages. It is in these pages that the manufacturers inform the dealers of the production of certain materials. It is impossible to tell their entire stories in the brief space allotted for advertising, but for this purpose have had leaflets, booklets and catalogues printed. In these periodicals can be found a complete description of the materials advertised, as well as a detailed account of the various uses to which such materials may be put.

The building material dealer should have at his command complete information relative to every branch of the building material industry. This information should be carefully read upon its receipt and then filed in such a manner that it can be easily and quickly procured when further information is desired along the particular line of material of which this catalogue treats.

In subsequent issues we shall endeavor to print articles describing the best methods of filing information secured from manufacturers of building materials.

Combined Businesses Brings Success.

John G. Johnson is the broker, real estate man, fuel dealer, transportation manager and building material man of the city of Manitowoc, Wis. Special emphasis is put by Mr. Johnson on his brokerage, real estate and building materials departments. When asked recently what the advantages were in associating these three businesses, Mr. Johnson replied:

"I associated these three branches to my business

JOHN J. JOHNSON, "THE SUPPLY MAN," OF MANITOWOC, WIS.

after a most careful investigation. Brokerage, which has a broad meaning, I selected to handle money and anything that would connect itself with the real estate and building material business, for you have got to have money to do things and when you have the money you must have some place to invest it so as to make it perform the service. In conjunction with my building material line I could not see where money could be put to any better advantage than in real estate, for without real estate there is no opportunity for building.

"After the real estate is secured, material must be had to make further use of this real estate. This intermingling of the three branches prompted me to combine them. Brokerage, real estate and building materials go to make up the busy world. After these three lines have been used from the beginning to the finish they await man for full achievement, in which the brokerage business can again play a very important part. It is after the use of these three departments that my fuel and transportation business become important, for when real estate has been secured and improved, when the families have moved in, then are fuel and transportation the requirements."

Mr. Johnson is a booster for fireproof construction. In listing his materials he covers practically everything available and finishes with these words: "In fact anything made for the construction of a fireproof building." To explain his line he uses the words, "Wood can now be entirely eliminated in the construction of a building."

Will Practice Economy in Unloading.

H. E. England is a coal and wood dealer at Rockville, Md., who is about to embark in the building material business and for the purpose of economically unloading materials which can be shipped in hopper cars is constructing a series of bins over which he will have a private siding on a trestle.

In explaining his reason for building this improvement Mr. England says, "I am at present in the coal, wood and feed business, and especially in the unloading of coal these bins will be very helpful. I am about to enter the building material field, specializing on crushed stone, sand and gravel. My trestle is 165 feet long and carries a single track. I have already built three bins 30 by 15 feet with a capacity of 250 tons each. I expect to finish four more and will leave space for one or two at either end which will be built when necessity requires it. I anticipate that my cost of unloading coal and the heavier building materials will be greatly reduced by use of the trestle and the bins, because my teams can drive directly under the bins and by means of trap doors load up in a few minutes' time."

Lomax, the Loadstone.

The village of Lomax, Ill., is being termed by its boosters, the "Loadstone." They declare that it has already proven a loadstone to seekers for ideal homes.

Lomax is on the Mississippi river and almost directly opposite Burlington, Ia. It is not quite two years old; it is an incorporated village with a population of about 1,000 people and has the distinction of being the only village in the United States that is being built under a trustee. A site consisting of 25,000 acres was acquired by the founder and then placed in trust through a trust deed filed with the court, turning it over to the people for the purpose of building a model village.

One feature of the village is that they have a factory district isolated entirely from the business and resident sections. This factory district is fed by numerous spurs and a terminal railroad. This road is to be conducted by the village on a cost basis.

Factories are naturally desired, but no bonus is paid to such manufacturers as see fit to locate. Buildings are furnished, however, which are built especially for each manufacturer on ample ground. These are leased to the manufacturer on a rental basis of two per cent of actual cost of construction and of acre price of land. Power is furnished free for 30 years to the extent of one horsepower for each adult male employee. Additional power is furnished at a maximum cost of $20 per horsepower per year.

Lomax starts out as an ideal village—may she continue to be so.

NEW BRICK ROADS FOR MILWAUKEE.

The Balliet Supply Co., Milwaukee, Wis., has been awarded the contract for furnishing 200,000 Barr bricks to the city of Appleton, Wis., for paving half of Appleton street, in that city. The remainder of Appleton street and two blocks on Washington street will be paved with brick next year.

Enthusiastic Over New Association.

Dealers in Maryland, Delaware and Washington Await With Much Interest Meeting at Baltimore on August 25.

Considerable interest and much enthusiasm has been shown by the dealers of Maryland, Delaware and Washington, D. C., in the steps already taken towards the formation of a building material dealers' association of this district. Because of the activities that Rock Products and Building Materials has taken in this movement a large number of telegrams and letters have been received from dealers in the district endorsing the movement and pledging their support. Typical of the telegrams received is one from Mr. Charles W. Tingle, a dealer at Berlin, Md., in which he regrets his inability to attend the meeting held on Aug. 4 at Baltimore, and adds: "I will surely be in Baltimore next Tuesday. Whenever dues are requested call on me."

This is the spirit of the new competition which exists among dealers who recognize that their competitors in business are also human beings and should be treated with all the courtesy and kindness due to mankind.

That the meeting of Aug. 4 was a decided success is not only the opinion of the dealers present at the time, but is likewise shared by Mr. Walter C. Schultz of the Mason Material Dealers' Association of New Jersey, who journeyed from his place of business in Hoboken, N. J., to Baltimore to address the dealers. "I assure you that it was a real pleasure to be with you at Baltimore," writes Mr. Schultz.

Committee Hard at Work.

The committee appointed at the Aug. 4 meeting to draw up a constitution and by-laws and to perform such other work as will make the association a complete success has been busy every day since their appointment. Word from Mr. Henry W. Classen, secretary pro tem of the new association, says that the committee met at Baltimore on Friday, Aug. 14, and have drawn up an ideal constitution and set of by-laws. An invitation is being mailed to every dealer in the territory, inviting him to attend the meeting to be held at the Emerson Hotel, Baltimore, at 11 o'clock, Tuesday morning, Aug. 25.

The cherished thought of a number of the more progressive dealers of Maryland, Delaware and Washington is rapidly coming to a fulfillment. For years a number of the dealers in this district have hoped and waited for the organization of a building material dealers' association. Local or city associations have been in existence for a decade or more but nothing in the shape of a state or district association has ever been attempted before. The dealers in this district are imbued with the association spirit, even to the extent of joining associations in other states in the absence of one in their own commonwealth.

Inasmuch as a number of the dealers have taken the initiative and performed the preliminary work, it is the duty of every building material dealer in Maryland, Delaware and Washington, D. C., to answer the call of these men by their personal presence at the Emerson Hotel next Tuesday morning at 11 o'clock. The benefits are unlimited and can be gauged only by the individual seeking such benefits.

DEALERS' DAY IN BALTIMORE.

Under date of Aug. 19 the organization committee sent an invitation to retailers and manufacturers in Maryland, Delaware and Washington, D. C., urging their attendance at the meeting to be held at the Hotel Emerson, Baltimore, Tuesday, Aug. 25, at 11 a. m. The announcement, under the title "Dealers' Day in Baltimore," is as follows:

August 25th, 11 a. m. at the Hotel Emerson, Baltimore, is the time set for permanent organization of the dealers in builders' supplies in the Delaware, Maryland and District of Columbia Section. The preliminary meeting held last week was very instructive and developed into a strong demand for a district organization of dealers in masons' materials, terra cotta pipe, etc.

Our committee has prepared the details for effecting permanent organization on the 25th inst. as per above call. An outline of the plans of operation of the new organization will be presented at this permanent organization meeting. Your presence is very much needed for the success of this conference. You are not committed to join by attending this meeting in case you are dissatisfied with the policies and working plans that will be proposed for advancing the interests of the dealers throughout this section, but come and learn and then decide as to going along with this important movement.

Manufacturers in these lines of materials are also invited and may become associate members in the new organization if they are interested to subscribe to the principles of the association. Every one's act is entirely voluntary.

The meeting will be called to order promptly at 11 a. m. by the temporary chairman. Cold buffet luncheon will be served at 1 p. m. and the afternoon session will proceed promptly at 2 p. m. Preliminary canvass indicates a large and enthusiastic meeting to rally around the flag of improving dealers' rights and increasing dealers' profits. This unquestionably means more money to you.

Please advise chairman the name of those who will attend from your firm so that all possible preliminary listing will be arranged in advance of calling the session together on August 25th.

Yours for more co-operation,
CHARLES H. CLASSEN, Chairman,
H. P. BOYD, Ex-Officio,
CHARLES WARNER,
VICTOR M. CUSHWA,
B. L. GROVE,
H. E. MITCHELL,
Organization Committee.

CHARLES H. CLASSEN, CHAIRMAN OF ORGANIZATION COMMITTEE.

Texas Dealers Organize.

Retailers Meet at Dallas and Form Texas Building Material Men's Association.

Dallas, Texas, Aug. 18.—At a meeting of representative building material men of Dallas, Houston, Fort Worth, San Antonio and other towns of the state held here Aug. 12, the Texas Building Material Men's Association was organized. It has for its object the closer acquaintance of the men engaged in this line and improvement of the building material business generally.

Officers were elected as follows: President, T. E. Jackson, Dallas; vice-president, E. A. Peden, Houston; secretary and treasurer, H. A. Spafford, Dallas, who is also secretary-treasurer of the Dallas Material Men's Association. W. S. Mosher of Dallas, H. A. Hurt of Houston, and F. W. Kassebaum of Houston comprise the balance of the board of governors.

The executive committee was appointed by the board of governors as follows: J. F. Shelton, Fort Worth, chairman; B. A. Reisner, Houston; F. L. Hilyer, San Antonio; J. H. Payne and H. A. Spafford, Dallas.

E. A. Barden of Houston was appointed chairman of the membership committee, together with R. S. Root, Forth Worth; C. W. Long, Dallas; E. P. Hunter, Waco, and J. C. Dionne, Houston.

Auditing and finance committee is composed of W. A. Sedwick, Dallas, chairman; S. A. Menczer, Fort Worth, and P. L. Jackson, San Antonio.

Headquarters of the new association will be established in Dallas under the personal direction of the secretary-treasurer.

New Incorporations and Ventures.

The firm of Campbell-Schultz Co., Passaic, N. J., has been incorporated with a capital stock of $125,000 to deal in building materials, contractors' supplies, coal, ice, etc. J. M. Campbell, C. Schultz and W. C. Schultz are the incorporators.

The Spiro V. Merrill Heating and Roofing Co., Birmingham, Ala., has been incorporated with a capital stock of $7,000, with Lee Merrill as president, J. N. Merrill vice president and S. Spiro secretary and treasurer.

The firm of Foster & Southwick has been incorporated in Binghamton, N. Y., to manufacture and deal in clay products with a capital of $25,000. The incorporators are C. L. Foster, Bradford, Pa., L. I. Foster, and E. L. Southwick, Binghamton, N. Y.

The Eastern Cement Brick Co., of Boston, Mass., has been incorporated with a capital stock of $50,000 to engage in the manufacture of artificial stone. The officers of the new concern are R. S. Roberts, president, F. E. Leavitt, Somerville, treasurer.

The Abbotts Methol Plaster Co., of Boston, Mass., has been incorporated with a capital stock of $35,000 with T. Balboui, Boston, Mass., president, and K. A. Bradt, Passaic, N. J., treasurer.

The Louisville Sand & Gravel Co., Louisville, Ky., has been incorporated with a capital stock of $75,000. M. M. Renn, Henry Schnutz and Leon P. Lewis are the incorporators.

The Premier Flooring & Materials Co., Chicago, Ill., has been incorporated with a capital stock of $100,000 for the manufacture of concrete and cement work. W. S. Purington, J. L. Phillips and A. B. Cross, all of Chicago, are the incorporators.

The Tampa Hydro Stone Mfg. Co. has been incorporated at Tampa, Fla., with a capital stock of $20,000 for the manufacture of artificial stone, etc. J. L. Roumillat, president; R. L. Wilder, vice-president, and C. W. Farnsworth, secretary-treasurer, are the officers of the new company.

Building Products Company is the name of a new firm that has been incorporated in Chicago, Ill., with a capital stock of $125,000 for manufacturing and general contracting. The incorporators are Chas. S. McNett, H. L. Brennan and A. H. Mauer.

The firm of Schroeder & Hortsmann of 519 Third St., Brooklyn, N. Y., has been incorporated with a capital stock of $15,000 to deal in brick, lumber, etc. F. M. and Martin Hortsmann and J. G. Schroeder are the incorporators.

The River Sand and Gravel Co. is a new river concern organized at Owensboro, Ky., with a capital of $10,000. P. A. Yager, J. Ed. Delker, Margaret B. Yager and W. L. Delker are the incorporators and stockholders. The charter will run for a period of 50 years from June 22, when the company began business. The yards of the company will be located at Owensboro, where, besides sand and gravel, coal, lime, cement concrete blocks and other building supplies will be handled.

Annual Picnic of Ohio Builders' Supply Dealers

At the Ninth Annual Summer Meeting the Ohio Builders' Supply Association and the Ohio Retail Lumber Dealers' Association Join Hands in Social Session at Cedar Point.

The Breakers Hotel at Cedar Point, was a gala place on Aug. 7 and 8, 1914. The men who sell builders' supplies and lumber in the state of Ohio gathered with other factors in the supply business to discuss legislative matters; to receive thoughts on the efforts that have been put forth on lien legislation and consider other problems that face the retailer each year.

It was not intended that this meeting should be a gathering of the trade to have a number of sessions, but rather to depend more on its social side; it was figured that while the man from the inland was bathing in Lake Erie he could talk with his neighbor or his competitor from some distance on subjects of vital importance to both of them. Therefore, the first day and until noon Saturday was spent largely in visiting. Many of the gentlemen brought their wives with them and the photographers who had been present for several days were succeeded by the Builders' Supply men —and they owned Cedar Point, beach, lake, pavilions, and all were well crowded with the frolickers.

First Session.

However, during this day and a half the Executive Committee held their semi-annual conference and with Messrs. Edward R. Cormack, president of the National Builders' Supply Association, W. W. Cooney of Moores-Cooney Co., Cincinnati, Frank Kinney of the Hyde Park Supply Co., Cincinnati, discussed closer relations between all builders' supply associations with the National and on motion of Mr. W. A. Fay of Cleveland, the Executive Committee ratified the Board's affiliation with the National Builders' Supply Association which added one hundred and seventy odd members to the roll of that body for 1914. They selected President R. E. DoVille of this body as a member of the executive board of the National Association. The treasurer was authorized to pay a per capita membership fee to the National. It was also understood that the National would be enlarged to make a representative body in the earliest possible time. It was further moved and seconded that J. C. Neeley, secretary of the Ohio Builders' Supply Association, be instructed to join a Federation of Secretaries of the Ohio Builders' Supply Associations about to be formed.

Second Session.

On Saturday noon, Aug. 8, a luncheon was served in the big dining room of the hotel. One hundred and fifty strong were the supply and lumber men who enjoyed several interesting talks by different members present. One of the first subjects was the "Lien Law" by A. C. Klumph of Cleveland.

Mr. Sidney Clemmons of the American Lumberman, gave an interesting talk on co-operation of the building material trade along the lines of community development. Mr. A. C. Klumph of Cleveland then explained in detail the situation in Ohio regarding the lien law. It appears that the law on the Ohio statute books is excellent in all respects

R. E. DO VILLE, PRESIDENT OF OHIO BUILDERS' SUPPLY ASSOCIATION.

and is perfectly satisfactory to the retail lumbermen and the builders' supply dealers; but there is some opposition from the building and loan associations, therefore, he thought it desirable that the present committees on lien laws be continued and that they have further conferences with the building and loan associations with the idea of perpetuating the present law.

Mr. A. S. Porter of Cleveland, representing the Louisiana Red Cypress Co. of New Orleans, La., was called upon to explain "Why cypress is not red," but he disregarded the subject. He commented, however, on the social side of the meeting and said he was convinced since he became an Ohio product that the Ohio lumbermen were the best he had ever known.

Mr. King, president of the Ohio Retail Dealers' Association, who presided at this conference urged all members of the Builders' Supply Association to interest themselves in securing satisfactory legislation and especially a state building code.

Mr. J. L. Rice of Akron, Ohio, representing the recently organized Sewer Pipe Association, explained the sewer pipe situation in Ohio. He stated while the laws and the ordinances permitted the use of sewer pipe for house drainage, yet through the persistance of the plumbers and plumbing supply associations, sewer pipe for that purpose had been practically supplanted by cast iron sewer pipe. He explained that the antagonism to vitrified sewer pipe was shown in many ways. In one place the requirement was that sewer pipe should be encased in two inches of concrete. Mr. Rice presented affidavits to the effect that concrete was more porous than sewer pipe and that incasing it in concrete added nothing whatever to its value for that purpose, the inference being that the specification regarding concrete was added merely to make the use of sewer pipe impossible by making the cost prohibitive.

Mr. D. P. Wind of the A. C. Davis Lumber Co., Columbus, was called upon and urged the salesmen to co-operate with both these organizations and get every dealer in them. He declared he made it his business to do this and he believed it was both to the interest of the manufacturer and wholesaler that the Retailers' Association be as representative as possible and all should co-operate to that end.

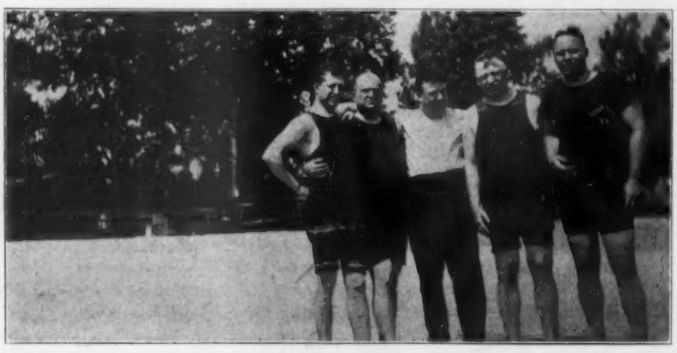
Third Session.

The association discussed the annual meeting place and program for the meeting next January and decided to meet at the same time and place—Toledo, Ohio—with the Retail Lumber Dealers of Ohio.

There was also organized and perfected by the local board a Federation of Secretaries composed of men looking after the interests of the various building material associations in Ohio and included Mr. J. C. Neeley, of the Ohio Builders' Supply Association; E. A. Roberts, of the Builders' Exchange, of Cleveland; W. J. Duffy, of Toledo; O. W. A. Phelps, of Dayton, secretary of the Lumbermen's Association. Other supply associations will be asked to co-operate and bring about an exchange of ideas as to how to best handle legislation and building laws and co-operate more closely for the better protection of our industry. The plumbers, brick and other supply dealers associations interested will be asked to come in.

The sessions were very interesting, although the attractions of the beach and the gala day excur-

THE "BEACH-NUTS"—GEORGE GENGNAGEL AND WIFE, SAMUEL J. VAIL, WIFE AND DAUGHTER, MRS. J. P. "BUSTER" BROWN, CLAUDE W. FILER AND WIFE.



THE "HE BEAUTIES"—FROM LEFT TO RIGHT: CLAUDE W. FILER, GEORGE GENGNAGEL, "BUSTER" BROWN, SAMUEL J. VAIL, "BILL" ORD.

The market place of the building material industry. Employment department, machinery wanted and for sale, etc. If your wants are not answered in this page, write a letter to this office.

THE FRANCIS PUBLISHING CO.
537 S. Dearborn Street Chicago, Illinois

:: THE :: BOURSE

Advertisements will be inserted in this section at the following rates:

For one insertion.....35 cents a line
For two insertions.....45 cents a line
For three insertions.....60 cents a line

Eight words of ordinary length make one line. Heading counts as two lines.
No display except the headings can be admitted.

Remittances should accompany the order. No extra charges for copy of paper containing the advertisement.

EMPLOYMENT WANTED

WANTED—A competent Trap-Rock superintendent. One who is capable of opening up and operating a first-class quarry plant, and who is very thoroughly familiar with blasting, etc. Must have had several years' experience. For particulars address, giving references, amount of salary expected, P. O. Box 805, Hartford, Conn.

EMPLOYEES WANTED

GYPSUM MINE

Advertiser is open for position as superintendent. Thorough experience, sinking, explosives, pumps, ventilation. Can furnish references as to character and ability. Address Box 1007, care ROCK PRODUCTS AND BUILDING MATERIALS.

Wanted—By thorough sand and gravel man position as office or sales manager or position that will later lead to same. A live wire, who can produce results. Best of references.
Address Box 1006, care ROCK PRODUCTS AND BUILDING MATERIALS.

WANTED—Position as General Manager or Salesman by man experienced in the rock crusher business and in road contracting; also, in the sale and delivery of cement and lime. Twenty years' experience, highest reference for ability and character. Only engagement with a high-grade concern will be considered. Address Box 1009, care ROCK PRODUCTS AND BUILDING MATERIALS.

MACHINERY WANTED

WANTED—To purchase one second-hand rotary drier about forty feet long. State price, make, location and condition. J. F. COLEMAN, 920 Hibernia Bldg., New Orleans, La.

PLANTS FOR SALE

FOR SALE—Crushed Stone Quarry and Plant in Ontario, Canada. Average yearly output ninety thousand tons. Can easily be increased fifty per cent with present plant. Natural gas and electric power. Best of road metal. Good roads only starting. Sidings from two railways. Address Box 1004, care ROCK PRODUCTS AND BUILDING MATERIALS.

FOR SALE—Profitable lime manufacturing plant with inexhaustible quarry. Capacity 200 barrels per day. Have contract for 300,000 barrels. Have 6c rate to New York, 7c to Boston. Owners have other business. Address Box 372, care ROCK PRODUCTS AND BUILDING MATERIALS.

BUSINESS OPPORTUNITIES

WANTED—A man with capital to invest in a new and promising Lime Plant. Fine location and abundance of excellent limestone. Products giving the greatest satisfaction. Want to increase capital with a view of hydrating a part of our products. General management of the company will go to a capable man with capital to invest. Address Box 267, Ft. Towson, Okla.

AGRICULTURAL LIME AND CRUSHED STONE QUARRY FOR SALE.

A well-developed lime and crushed stone quarry in Eastern Tennessee, situated on the Southern Railway, of approximately 43 acres, is now offered for sale at a very attractive price on reasonable terms. A big market exists in the territory for agricultural lime. Modern road building is now going rapidly forward, which will make a good outlet for that product. Full information and details obtained by referring to file 47833 and writing M. V. Richards, Land and Industrial Agent, Room 371 Southern Railway, Washington, D. C.

MODERN NEW ENGLAND LIME PLANT FOR SALE.
Three modern kilns, all necessary buildings, railroad spur, dwellings, etc. Capacity 350 barrels per day. Fully equipped and in operation. Has one of the best chemical lime trades in New England. Plant is usually overtaxed with orders. The lime sells for $5.00 per ton at the works. An opportunity to get at a moderate investment a good business which can be made very profitable.
Address Box 1005, care ROCK PRODUCTS AND BUILDING MATERIALS.

BUILDERS' SUPPLY AND GRAIN BUSINESS FOR SALE.
Attractive proposition in active city of New York State will be sacrificed to hustler. Present owner retiring from business. Address Box 1008, care ROCK PRODUCTS AND BUILDING MATERIALS.

FOR SALE—Lime Rock Quarry. Unlimited supply of rock which tests 92.19% carbonate of lime directly on main line of trunk line R. R. Wood fuel. For further particulars address J. L. HARRELL, R. F. D. No. 2, Box 5, Alexander, Ark.

CARS & LOCOMOTIVES FOR SALE

CARS.

156—5 yard 36-inch gauge all steel Peteler 2-way dump cars, built 1910 and '11. Thoroughly overhauled. Practically good as new. The best dump cars we have ever seen. We are putting these cars on the market at bargain prices. Write us for further information.

Eight 36-inch gauge double-truck flat cars.

LOCOMOTIVES.

Eleven—12x16 Porter four-wheel saddle-tank 36-inch gauge locomotives, built 1910 and '11, and used until the end of the season 1911; practically new.

One—11x16 Pittsburg four-wheel saddle tank, 36-inch gauge.

Thirty-five 9x14 Porter four-wheel saddle tanks, 36-inch gauge. Most of these have steel cabs and were built since 1902.

STEAM SHOVELS.

Three—Marion Model 60 steam shovels, in excellent condition; ready for immediate shipment.

One—Bucyrus Model 65, with Model 70 front and applied. Thoroughly overhauled.

Two—Marion Model G shovels, in first-class condition.

Also big lot steam shovel repair parts, and other contractors' equipment.

MINNESOTA EQUIPMENT CO., Hibbing, Minn.

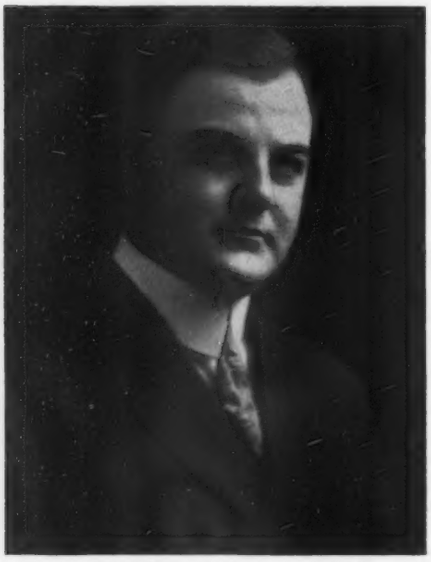
sions of the picnickers rather drew from the interest of those present, and the officers of these various organizations decided the summer outing was a good thing but it was no place for a business session.

The present officers of the Ohio Builders' Supply Association are: R. E. DoVille, president, Toledo; J. C. Neeley, secretary, Canton; J. W. Thomson, treasurer, Coshocton; vice-presidents—First, John Mueller, Lockland; Second, J. L. Price, Marion; Third, Geo. B. Christian, Jr., Columbus; Fourth, R. A. Brown, Springfield; Fifth, W. H. Smith, Newark; executive committee—W. A. Fay, Cleveland; J. W. Smith, Portsmouth; Howard B. Arnold, Dayton; F. B. Jones, Toledo.

There were about one hundred in attendance and those who were caught on the board walk and registered were as follows:

List of Attendance.

J. Q. Adams, Coshocton Lumber Co., Coshocton, O.
B. F. Andrews, Lehigh Portland Cement Co., Toledo, O.
Frank I. Andrews, Cleveland, O.
A. C. Armstrong, Thompson-Armstrong Co., Cincinnati, O.
Arthur R. Black, American Gypsum Co., Pt. Clinton, O.
C. T. Bliss, Uhrichsville, O.
L. F. Botzum, Akron, O.
C. R. Brigham, Atlas Portland Cement Co., Cleveland, O.



J. C. NEELY, SECRETARY O. B. S. A. AND ENTHUSIASTIC BOOSTER OF SUMMER MEETINGS.

Frank P. Brown—Huron & Wyandotte Portland Cement Co., Grand Rapids, Mich.
H. U. Brungart, Columbus, O.
A. J. Clements, Greer-Beatty Clay Co., Massillon, O.
E. K. Cormack, Wisconsin Lime & Cement Co., Chicago, Ill.
Fred J. Crisp, Geo. Crisp & Son, Akron, O.
H. J. Davis, Columbus, O.
E. H. Defebaugh, Rock Products and Building Materials, Chicago, Ill.
John C. Denison, National Mortar & Supply Co., Pittsburgh, Pa.
L. F. Desmond, Secretary, National Builders' Supply Association, Chicago, Ill.
C. F. Dingeldly, Youngstown, O.
Ford Donnelly, Donnelly Brothers, Cleveland, O.
J. J. Donovan, Alpha Portland Cement Co., Pittsburgh, Pa.
R. E. DoVille, Ohio Builders' Supply Co., Toledo, Ohio.
B. W. Druckenmiller, Crescent Portland Cement Co., Wampum, Pa.
Warren J. Duffy, Toledo, O.
A. J. Earl, Kelley Island Lime & Trans. Co., Cleveland, O.
H. T. Eaton, Niles, O.
John W. Eichelberger, L. D. Eichelberger's Sons, Dayton, O.
F. A. Elmore, Cincinnati, O.
G. H. Faist, Woodville Lime & Cement Co., Toledo, O.
W. A. Fay, Cuyahoga Builders Supply Co., Cleveland, O.
Claude W. Filer, National Plaster Board Co., Cleveland, O.
Ed. and L. E. Fishack, The Fishack Gypsum Co., Toledo, O.
H. F. Fraley, Consumers Coal & Supply Co., Lorain, O.
Geo. H. Gengnagel, Schaeffer-Gengnagel & Co., Cleveland, O.
Bert J. Graham, Interstate Clay Products Co., Cleveland, O.
S. C. Grant, Circleville, O.
W. H. Greer, Greer-Beatty Clay Co., Magnolia, O.
Charles Gross, Gross Lumber Co., Bellevue, O.
S. P. Harris, Springfield Coal & Ice Co., Springfield, O.
A. B. Hayes, Robinson Clay Co., Akron, O.
H. B. Heinn, Columbus, O.
J. and R. A. Henley, American Cement Plaster Co., Lawrence, Kas.
Lawrence Hitchcock, Kelley Island Lime & Trans. Co., Cleveland, O.
W. A. Holst, Holst Builders' Supply Co., Toledo, O.
E. J. Holway, Youngstown Ice Co., Youngstown.
Tom Hughes, Crescent Portland Cement Co., Wampum, Pa.
Paul H. Jandernal, Lehigh Portland Cement Co., Easton, Pa.
C. L. Johnson, Atlas Portland Cement Co., Cincinnati.
Ben Jones, New York, N. Y.
F. B. Jones, Toledo, O.
S. C. Kelley, Kelley Plaster Co., Sandusky.
F. H. Kinney, Hyde Park Supply Co., Cincinnati.
W. O. Kiracofe, Fishack Gypsum Co., Toledo, O.
I. W. Laidley, Reynolds Asphalt Shingle Co., Columbus.
Bert Lawton, Toledo, O.
J. C. Leaker, Lima.
O. H. List, Kelley Island Lime & Trans. Co., Cleveland.
R. M. Lucas, Columbus.
W. S. McCammon, L. H. McCammon Bros., Cincinnati.
B. W. McCausland Jr., U. S. Gypsum Co., Cleveland.
A. A. McConnell, Ohio & Western Lime Co., Jackson, Mich.
Reed McVey, East Youngstown Supply Co., E. Youngstown.
Earl Magrue, Cincinnati.
O. C. Maurer, Woodville Lime & Cement Co., Toledo.
F. S. Munz, Toledo, O.
W. H. Murray, Crescent Portland Cement Co., Wampum, Pa.
J. C. Neeley, Neeley Company, Canton, O.
Chas. O'Donnell, Buckeye Portland Cement Co., Bellefontaine.
J. R. Paul, Ironton Portland Cement Co., Ironton.
E. S. Porter, Mansfield.
L. G. Powell, Bostwick Metal Lath Co., Cleveland, O.
Wm. Powell, Toledo.
Wm. F. Powell, Atlas Portland Cement Co., New York, N. Y.
M. L. Prentice, Castalia Portland Cement Co., Castalia, O.
J. L. Price, J. L. Price Co., Marion, O.
J. E. Rheiner, Toledo, O.
John L. Rice, Akron.
E. A. Roberts, Builders Exchange, Cleveland, O.
L. D. Rogers, Lehigh Portland Cement Co., Cincinnati.
W. T. Rossiter, Cleveland Bldrs. & Supply Co., Cleveland.
W. E. St. Clair, Castalia Portland Cement Co., Castalia.
Charles Schmutz, Crescent Portland Cement Co., Youngstown.
Wm. Shearer, American Cement Plaster Co., Columbus, O.
Harry E. Smart, Columbus.
J. W. Smith, Usona Manufacturing Co., Portsmouth, O.
J. Speed, Usona Manufacturing Co., Detroit, Mich.
L. N. Swaveley, Wooster.
Edw. C. Swessinger-Kelley Island Lime & Trans. Co., Cleveland, O.
N. E. Thomas, Evans & Thomas, Lima.
D. K. Thompson, Thompson-Armstrong Co., Columbus, O.
J. W. Thomson, A. H. Thomson & Son, Coshocton, O.
G. H. Uthoff, Woodville Lime & Cement Co., Toledo, O.
S. J. Vail, Alpha Portland Cement Co., Easton, Pa.
E. R. Van Nostran, Uhrichsville.
Paul V. Wagner, Cincinnati, O.
H. S. West, Toledo, O.
H. H. Wilson, Cleveland, O.
J. W. Windsor, Houston Bros. Co., Pittsburgh, Pa.
W. E. Wright, Akron, O.
A. Wummis, Sandusky, O.

Ladies Present.

Mrs. Edw. C. Swessinger, Sandusky, O.
Miss Mildred Swessinger, Sandusky, O.
Mrs. W. A. Holst, Toledo, O.
Mrs. F. B. Jones, Toledo, O.
Mrs. J. E. Rheiner, Toledo, O.
Mrs. Wm. Powell, Toledo, O.
Mrs. Geo. Gengnagel, Dayton, O.
Mrs. R. E. DoVille, Toledo, O.
Mrs. S. J. Vail, Detroit, Mich.
Miss Gladys Vail, Detroit, Mich.
Mrs. Wm. F. Powell, New York, N. Y.
Mrs. B. W. McCausland, Jr., Cleveland, O.
Mrs. W. E. Wright, Akron, O.
Mrs. Bert Lawton, Toledo, O.
Mrs. Claude W. Filer, Detroit, Mich.
Mrs. Chas. A. Gross, Bellevue, O.
Mrs. J. C. Leaker, Lima, O.
Mrs. Bert J. Graham, Cleveland, O.
Mrs. Frank P. Brown, Grand Rapids, Mich.

Notes of the Meeting.

That merry-go-round, the grinding of human fat men between sky and their patter on the water al-

W. A. FAY, WHO MADE MOTION WHICH MADE O. B. S. A. AUXILIARY BODY OF N. B. S. A.

ways had a crowd around it. When Fay and Andrews of Cleveland were flying in the air there was an awful creaking of the machinery.

Ed. Holway, of the Youngstown Ice Co., accompanied by Long Jim Donovan and several others, drove up to the "Point" and made some observations of the concrete road along the beach.

The sailing element of the convention were disappointed that Commodore A. Y. Gowen and his "Speed Jack" were not present, as well as Commodore A. H. Gallagher, of Toledo. These congenial spirits have always added to the convention's happiness and we missed them.

Will F. Rossiter, of the Cleveland Builders Supply Co., drove a couple of distinguished townsmen over from Cleveland and really found the new concrete roadway along the lake a diversion after the activities of this first six months of the year. He remarked that the new Division avenue filtration plant at Cleveland, which is being constructed by John F.

(Continued on page 37.)

NEWS of the TRADE

General Conditions.

Building Construction Increases 15 Per Cent in July Over Corresponding Period of 1913.

Building operations in the United States for July show an increase of 15 per cent over the corresponding month a year ago. Permits were taken out in seventy-nine principal cities according to official reports to Construction News for the construction of 19,786 buildings involving a total cost of $68,699,255 in July, as compared with 18,526 buildings aggregating in cost $59,435,000, for the same month a year ago, a gain of 1,260 buildings and $9,264,255, or 15 per cent. This is a most gratifying showing and is still more interesting when one takes into consideration the fact that the increases were so general. The figures in detail are as follows:

Cities.	1914 No. of Bldgs.	1914 Estimated Cost.	1913 No. of Bldgs.	1913 Estimated Cost.	% Gain.	% Loss.
Chicago	1,107	$ 9,148,760	876	$ 6,035,000	51	..
New York (Boros Man. and Bronx)	410	6,869,333	411	9,107,630	..	24
Boston and vicinity	542	5,598,000	416	4,320,000	29	..
Philadelphia	1,556	4,661,850	1,150	3,469,700	34	..
Brooklyn	1,183	3,679,946	868	2,896,035	27	..
Cleveland	1,337	2,523,050	1,066	2,746,310	..	8
Seattle	763	2,530,590	703	1,414,620	78	..
Los Angeles	853	2,081,396	1,337	3,334,314	..	37
San Francisco	589	2,068,537	437	1,415,819	46	..
Pittsburgh	363	1,510,312	290	777,138	94	..
Minneapolis	583	1,326,095	595	1,055,770	25	..
St. Louis	896	1,287,859	746	1,045,720	23	..
Washington, D. C.	428	1,193,883	417	709,160	54	..
Newark	216	1,172,043	223	1,307,089	..	10
Indianapolis	637	1,140,000	501	1,050,000	7	..
Rochester	377	1,067,101	318	511,733	108	..
Cincinnati	1,341	1,055,330	1,122	583,430	81	..
St. Paul	233	1,053,100	211	932,655	13	..
Kansas City, Mo.	349	1,012,055	333	857,475	18	..
Buffalo	398	985,000	409	908,000	8	..
Dallas	171	941,560	170	806,250	16	..
Baltimore	373	837,458	131	394,089	112	..
Springfield, Mass.	168	795,835	149	374,236	190	..
Albany	312	672,005	262	315,770	119	..
Dayton	86	660,700	93	240,350	153	..
San Diego	224	579,556	284	435,380	33	..
Worcester	196	571,749	146	385,999	48	..
Toledo	252	569,579	246	671,605	..	15
New Orleans	....	505,392	....	563,500	..	10
Columbus	260	503,255	284	421,945	19	..
Atlanta	268	495,902	337	434,943	14	..
Erie	190	474,206	111	133,563	255	..
Birmingham	387	468,385	....	379,017	23	..
Richmond, Va.	199	461,949	107	147,425	213	..
Nashville	65	454,039	39	56,707	700	..
Oakland	162	420,665	252	660,588	..	35
Pasadena	168	409,032	158	215,347	90	..
Akron	230	405,960	263	728,565	..	44
Omaha	120	402,605	121	392,325	3	..
Memphis	261	333,006	243	304,366	9	..
Sioux City	38	322,050	73	174,986	84	..
Hartford	111	311,985	84	970,055	..	67
Duluth	186	256,259	163	256,413	13	..
Fort Wayne	74	256,100	61	383,500	..	33
Schenectady	69	244,655	169	279,210	..	23
Salt Lake City	102	238,750	80	149,740	59	..
San Antonio	215	228,947	245	244,965	..	6
Spokane	57	228,635	73	169,765	35	..
Paterson	107	229,546	59	253,590	..	9
Peoria	57	223,200	48	199,375	11	..
Kansas City, Kan.	38	188,005	53	53,942	255	..
Elizabeth	62	179,196	46	183,853	..	2
Grand Rapids, Mich.	155	169,855	165	249,783	..	30
Scranton	74	167,155	67	133,510	25	..
Berkeley	117	166,500	70	133,000	25	..
Savannah	75	153,635	76	194,054	..	21
Altoona	96	142,967	84	109,896	30	..
Davenport	61	141,255	30	81,850	73	..
Des Moines	60	140,690	67	131,164	7	..
Lincoln, Neb.	50	138,850	40	121,610	14	..
Passaic, N. J.	34	131,575	21	84,460	56	..
Evansville	131	128,645	109	123,990	4	..
Brockton	53	120,670	34	77,125	56	..
Chattanooga	111	116,370	122	53,690	116	..
Wilkes-Barre	95	108,413	53	633,449	..	83
Portland, Me.	30	104,950	41	98,015	7	..
East St. Louis	43	103,695	71	104,315	..	..
Reading, Pa.	50	103,600	29	81,425	27	..
Tacoma	130	96,551	151	539,599	..	82
Bayonne	35	88,516	27	98,649	..	14
St. Joseph, Mo.	85	80,997	62	57,109	42	..
Saginaw	54	80,895	17	35,350	29	..
Springfield	39	74,800	35	81,075	..	7
Holyoke	14	71,785	19	124,917	..	43
San Jose	37	69,110	26	25,090	107	..
Topeka	50	64,490	61	120,977	..	47
Lincoln	31	58,750	62	126,275	..	53
Troy	61	51,827	62	167,840	..	69
Pueblo	14	48,012	15	74,070	..	35
Totals	19,786	$68,699,255	18,526	$59,435,000	15	..

Every section of the country shows an increase, while the losses were widely scattered. There was a remarkable increase in Chicago, the permits aggregating 1,107 involving a total cost of $9,148,760, as against 876 permits and $6,035,000 for the same month a year ago, an increase of 51 per cent. Boston had a gain of 29 per cent, Philadelphia 34, Brooklyn 27, Pittsburgh 94, Baltimore 112, Washington 23, Buffalo 8, Rochester 108, Dayton 183, Cincinnati 81, Brockton 56, Portland, Me., 7, Springfield, Mass., 190, Worcester 48, Albany 119, Indianapolis 7, Columbus, Ohio, 19, Reading 27, Wilkes-Barre 116, Erie 255, Scranton 25, Altoona 30. The northwest is making a wonderful record, Minneapolis leading with an increase of 125 per cent, St. Paul 13, Sioux City 84, Duluth 13, Davenport 73 and Des Moines 7, Kansas City, Mo., 18, Kansas City, Kan., 118, Omaha 2, St. Joseph, Mo., 42, Salt Lake City 59. Big gains were made in the South, including St. Louis 23 per cent, Atlanta 114, Birmingham 23, Richmond, Va., 213, Nashville 700, Chattanooga 116, Memphis 9, Evansville 4, Dallas 16.

The Pacific coast cities make an unusually good record. San Francisco 46, Seattle 78, San Diego 33, Pasadena 90, Spokane 35, Berkeley 25 and San Jose 107.

The losses were confined to twenty-five widely scattered cities including New York, in which there was a decrease of 24 per cent, Cleveland, which has been making a phenomenal record for years past lost only 8 per cent, Toledo 15, Akron 44, Newark 10, Hartford 67, Holyoke 42, Schenectady 23, Peoria 9, Grand Rapids 30, Savannah 21, Tacoma 82, Springfield, Ill., 7, Topeka 47, Lincoln 52 and Pueblo 35.

Conditions at the Nation's Capital.

Washington, Aug. 18.—Business in the building material line fell off to a considerable extent about July 15. During April, May and June business was good, according to local dealers, and it is expected that an activity in the building lines will present itself some time during August. As yet it has not put in its appearance, but is expected before the end of the month and when it once begins should remain until about Oct. 1.

There is little big building going on, the bulk of present orders coming from speculators who are building in the residence sections of the city. Much repair work is also calling for supplies. Mr. B. L. Grove, of the Grove Lime & Cement Co., states that his firm has been busy, but is experiencing the usual summer quietness just now and materials furnished are for small buildings and repair work. Mr. Grove declares that the main reason for any inactivity which may present itself is the fact that Washington is being overbuilt. Washington with its migratory population has a sufficient number of houses to meet its demands for homes and if speculators continue their activities "for rent" signs will surely be placed on a number of the older structures.

Mr. T. Edw. Clark, whose place of business is located at 305 New Jersey Ave., N. W., says that by keeping a complete line of building materials he is able to keep busy even during the dull summer months. "I keep a complete line of supplies," says Mr. Clark, "even going far beyond. I have occasional calls for plumbing supplies so I carry a small stock of this kind of goods in addition to a regular line of building supplies. While business is a little slow at present we are by no means idle."

Mr. S. Dana Lincoln, proprietor of the National Mortar Co., declares that material being sold at the present time is for small buildings and repair work. "Some big jobs are being completed and for these we are filling orders on contracts previously received," says Mr. Lincoln. "Business is a little quiet just now, but we are optimistic and look for a good fall season."

The Southern Fireproofing Supply Co., which succeeds J. G. Waters & Son, reports that the months of April, May and June were good and that business is a little quiet at the present time. Messrs. H. R. Eastwood and D. L. Jenkins, who are back of the Southern Fireproofing Supply Co., are energetic young men and they go after business with a determination to get their share of it. Mr. Eastwood predicted that business for his company would open up during August and prospects were bright for a fall season. "While business during 1914 has been good," said Mr. Eastman, "it has not been up to the amount that we received last year."

The builders' supply and feed business of Theodore Michael was brought to a complete standstill on July 28, when fire destroyed his office and warehouse, causing $12,000 damage. Fortunately the property was heavily insured and the loss from the conflagration was slight. "The fire has completely upset me," said Mr. Michael, "but by camping on the ground day and night, I am gradually getting the place into shape and am enabled to transact a little business."

Mr. S. M. Frazier, whose place of business is located in Anacostia, just across the river from Washington proper and in a residence section of the city, has just purchased his fourth motor truck. It is a four-ton "Wilcox" truck, for which he is having a local wagonmaker construct a body which will be suitable for the requirements of a building material delivery vehicle. "One of the things you have to do," says Mr. Frazier, "is to satisfy your trade. Give them the materials when they are wanted. Some of my hauls are to distant parts of the city, and without the aid of motor trucks I could not deliver my supplies. I have at the present time eleven teams and four trucks, and employ a special man to care for the motor trucks." Mr. Frazier reports that business is fair with him at the present time.

In that section of the District of Columbia known as Takoma Park, Mr. James H. Campbell, treasurer of the Columbia Brick and Coal Co., reports that business has been very good this summer. "We are getting our share and are not losing money in doing so," he says. "Our policy is to make a profit on everything we sell."

The Rosslyn Supply Co. is not finding business as plentiful as in former years, but is satisfied that they are getting their share of such business as is being placed with Washington dealers. According to Mr. Shearer of this company, they are placing special emphasis on builders' supplies, particularly structural steel.

Maryland.

Annapolis, Aug. 18.—Business in the building material line is rather dull at Annapolis, at the present time, but small orders are coming in and, while the volume of business is not very large, these seem to keep the dealers busy. The condition here really presents a case of plenty of work and little money. Mr. W. B. Gardiner of the W. B. Gardiner Co., states that most of the work at Annapolis is in connection with the naval academy located here. "There are a number of residences being constructed, however," says Mr. Gardiner, "and, of course, we are getting our share of these."

Cumberland, Aug. 18.—William P. Roeder, treasurer of the Builders' Supply Co., reports that prospects for the rest of the summer and the coming fall are exceptionally bright. "The prospects for the next few years are very good," said Mr. Roeder;

"in fact, conditions were never better, especially in the crushed stone end of the business. The city is about to let 18 miles of street paving, at an estimated cost of $258,000. We are sure that all of this work will have a concrete base. A great deal of building is also going on in the suburbs. A $500,000 electric light plant is also under construction, being erected of steel and brick. We have been in business for four years, and each year has showed an increase in business of 50 per cent over the preceding year."

Mr. Shade, president of this company, is equally as optimistic as to the future. "Business is good now," said he, "and prospects for the future were never brighter."

W. L. Sperry, president of the Hydraulic Cement and Manufacturing Co., declared that business is holding up very well in Cumberland. "The demand for cement and concrete materials is very satisfactory," reported Mr. Sperry.

Hagerstown, Aug. 18.—Business in Hagerstown is in a good condition at the present time. Dealers here are busy and are looking forward to a still busier fall.

Victor M. Cushwa, the leading building supply man of Hagerstown, reports that there is a good deal of building going on and demands for materials are being received in a satisfactory manner.

Mr. Steffey of Steffey & Findlay reports that while business has been practically dead it has picked up considerably during the last six weeks and at the present time is in fine condition.

Mr. C. A. Richie reports that the early part of the summer season was not very bright but that at present he is receiving a number of fine orders.

Rockville, Aug. 18.—Oscar L. Johnson, the popular building material dealer of Rockville, reports that business is rather quiet here at the present time. This is usual at this time of the year, but Mr. Johnson predicts that in a few weeks' time there will be the usual amount of materials purchased for the construction of small residences and for repair work. "Rockville is a small town," says Mr. Johnson, "and there is not a very great demand for strictly builders' supplies. As a result, we are compelled to carry a complete line of lumber, building materials and paints and with this combined line we are enabled to do a fair business."

MILWAUKEE RETAILERS EXPECT ACTIVE FALL.

Milwaukee, Wis., Aug. 18.—There are so many large building projects under way in Milwaukee that local dealers are confident an active fall business will be experienced. More inquiries and better orders are being placed even at this early date.

One of the largest building projects launched recently was the addition to Gimbel Brothers' Milwaukee store, which will cost about $500,000 and will furnish considerable business to local building material houses. Work has been started on the structure, which will occupy the site on Sycamore street from the river to West Water street. Bids will soon be opened on the work in connection with the erection of the new customs warehouse, which will be erected here by the government at a cost of $115,000. The building will be of brick fireproof construction, two stories high, with basement, and will contain about 7,200 square feet. Citizens of East Milwaukee have voted to erect a new $80,000 school building, which will be ready for occupancy within a year. The Standard Paper Company, of Milwaukee, is erecting a modern building, 150 by 120 feet in dimensions, which will be of reinforced concrete construction and strictly fireproof.

Milwaukee jobbers in building materials say that they are meeting with a good business from retailers in various parts of the state. Indications are that there will be considerable building carried on in the country districts and in the smaller cities and towns this fall.

Quietness Pervades Chicago Market.

July Permits Show Material Increase, But Dealers Say Business Is Slowing Up.

An increase of 51 per cent is shown in the number of Chicago building permits and their estimated value issued during July when compared with July, 1913. Permits were granted for 1,107 buildings at an estimated value of $9,148,680, while in July of last year there were but 876 permits issued, with a valuation of $6,635,000.

While quietness seems to prevail in the local trade, figures submitted by face brick dealers show that there was a total of 4,225,165 brick sold during the first 15 days of August. The best record of this period was made on Aug. 13, when orders were received for 653,850 brick, while on Aug. 18 (Saturday) the dealers' orders were limited to 71,310.

Where loans are required to finance buildings about to be erected, there appear signs of uneasiness on the part of contractors. Loans are not as readily given, moneyed people temporarily tightening up.

In spite of what may seem to be an absolute pessimistic condition, dealers are hopeful, optimism prevailing throughout the trade.

R. E. Wilcox, of Wilcox Co., 3690 Milwaukee Ave., says he has no cause to complain as his business is in very good condition.

C. F. Dynes, specialty salesman of Wisconsin Lime & Cement Co., 604 Chamber of Commerce building, reports that business in hard wall plaster, metal lath and other building specialties is very satisfactory.

National Brick Co., 188 North LaSalle street, reports nothing new and business running along about as well as can be reasonably expected under the prevailing conditions.

H. Podolsky, of Bonner & Marshall Brick Co., 1205 Chamber of Commerce building, remarked: "Things are very quiet in the brick business and since the war started inquiries have fallen off greatly, there being very little doing in general at the present time."

William P. Varney, of Hydraulic-Pressed Brick Co., 133 West Washington street, stated: "Business is simply rotten, the European situation seeming to have a tendency to tie up money and consequently business seems to be following suit."

S. S. Kimbell Brick Co., Chamber of Commerce building, report that business seems to be falling very fast.

G. Bowstead, of Meacham & Wright Co., 139 N. Clark street, remarked: "Business in Chicago is quite slack, and in my estimation this condition is brought about by the builders being unable to get loans from the banks with which to finance their building propositions. The money tie-up, I believe, is caused by the bankers having to adjust themselves to the circumstances brought to bear by the present European conflict. On the other hand, however, we have put on the market a new brick, the good qualifications of which we think will lead to our share of orders. All reports received from the far Eastern states indicate that they are all very optimistic, doing quite a fair-sized business and looking for good business prosperity."

Louisville Supply Business Active.

Retail Dealers Satisfied With Present Condition and Look for Better Fall.

Louisville, Ky., Aug. 18.—Conditions in the builders' supply line in this city are remarkably active for the lateness of the season and the dealers are generally satisfied with them and with the outlook for the future. Although the European war is affecting a great many lines of business, no effect has been observed in the building trades so far, nor do the supply men feel that any effect will be noted. Securities are a little hard to convert into cash, and little buying or selling is going on among the people of means. This condition may have a tendency to curtail building operations later on in the fall.

Pacific Coast Building Notes.

San Francisco, Aug. 18.—The month of July was one of the best building months of the year from the standpoint of new building permits issued, the total valuation of which was $2,068,537, a gain of three-quarters of a million dollars over the month of June and of more than half a million over the month of July, 1913. About one-half of the total was for frame structures of various kinds; and the remainder for brick and concrete work. There is a lot of work in plan here; but so far this month not much has been done in the way of letting out new work, the uncertainty as to deliveries of steel and the advancing prices resulting from the European war having caused prospective builders to hesitate.

Los Angeles also had a good building month in July, the total running to $2,100,451, this being over $400,000 better than the month preceding, but $1,125,000 behind the phenomenal month of July, 1913. About one-third of the Los Angeles valuation for July permits is for concrete and brick construction.

In the Pacific Northwest, the showing for construction in the month of July was unusually good. Seattle, Wash., led with a total of more than $2,500,000, or more than double the usual showing for that city. Portland, Ore., where building has been rather slow this year, shows signs of improvement. The permits issued during July amounted to $868,000, a gain of about two-thirds over June and about one-third over May. The smaller cities of the Pacific coast generally show a good healthy summer record. An exception is Stockton, Cal., where an "open shop" campaign has tied up building and has made general business conditions very bad.

KANSAS CITY BUILDING CONTINUES.

Kansas City, Mo., Aug. 18.—Kansas City has a large amount of building in prospect for the fall, and all year a great deal of building has been going on, big work, running into the millions. The many large structures on which work had started prior to the war declaration have not been seriously interfered with, the only noticeable effect of the temporary money stringency being an occasional cutting down of the payrolls; but in no case did work cease. New York has been momentarily halted, and contracts await the return of normal financial conditions, which it is anticipated, will not be long in coming. Indeed, the plans for large work are going ahead to the point of actual letting and of breaking the ground.

The immediate prospective increase in building operations is indicated in the building permits issued in the city during July; there were 349 permits, to a value of $1,012,055, while in July, 1913, the permits were 323 in number, at an estimated value of $857,475. The first seven months of 1913 showed building permits issued to the value of $6,125,920, against $8,013,930 for the same period of this year.

TEXAS.

Houston, Aug. 18.—The contract for the new million-dollar Texas Office Building to be erected in this city has been let to the George A. Fuller Co., of New York City. This building when completed will be one of the largest office buildings in the state of Texas, it will be 13 stories in height and will be constructed of steel, brick and reinforced concrete and is to be modern in every detail.

Fort Worth, Aug. 18.—Building material retailers of Fort Worth have decided to grant their employes the Saturday half holiday during the summer months. For the balance of the summer all yards will close at 1 p. m. on Saturdays.

BUILDERS' SPECIALTIES

Prepared Roofing Materials Line for Specialty Man

Many Homes In Need of Roof Repairs Which Are Sadly Neglected—Retailers' Opportunity to Secure Permanent Customers as Well as to Make Profitable Sales.

One of the most important parts of a building, but one which is often neglected is the roof. Procrastination is largely to blame for the neglect of this all important feature of the home. The average home owner who neglects his roof takes the attitude that it cannot be repaired during rain or snow and there is no necessity for repairing it during fair weather. Every one will admit that this method of putting off an important duty to his family not only inconveniences the owner and his loved ones, but also takes from the coffers of building material dealers the profits which would come to them through the sale of roofing materials.

The retailer can change his condition very easily by a little progressive work. He has a task before him which he ought to perform. He has an opportunity to become a benefactor as well as to secure friends and profits.

In the small city where the dealer is afforded time to investigate conditions, he should take his horse and buggy and drive through the residence districts, paying particular attention to the condition of the different roofs, making notes as he goes along. With this information he should either call himself or send his salesman and discuss with the home owner the advisability of putting on a new roof. The promptness with which the owners will respond to his suggestion will surprise him and will in the average case cause the dealer to keep a man permanently on the lookout for roofs in poor condition, with the object of acquainting the owners of such roofs with the advisability of using prepared roofing materials and asphalt shingles.

By this method the building material man will rapidly develop a specialty department and will need a specialty salesman. In this particular instance, a specialty salesman will sell nothing but prepared roofing materials and asphalt shingles. He might also be induced to talk of the other supplies carried in stock, but have him refer such inquiries to the office so that they can be handled by salesmen taking care of those lines.

A specialty man can be developed from any individual who has the ability to talk. He need not be much of a salesman to begin with, just so long as he is a bright fellow. It does not take much of a salesman to sell roofing materials, but it takes an interesting talker to convince a man that his home should have a new roof.

Instruct your salesman to talk quality rather than price when he is selling prepared roofing materials and asphalt shingles. Instruct him to leave the impression that they are sunproof, waterproof, fireproof, windproof and frostproof—practically nothing can destroy them. Another good talking point in connection with roofing materials is the convenience which may be had in laying them. They do not require the tearing out of the old wooden shingles, nor is there any necessity to have these dirty shingles lying around gangways and lawns during the time of repairs. Prepared roofing materials and asphalt shingles can be laid on top of old roofs and not only is the inconvenience of having the property littered up during repairs saved, but time usually occupied in tearing old shingles off is likewise saved.

Prepared roofing materials and asphalt shingles are neat and clean, easy to handle and are easily laid. A roof covered with them always presents a good appearance and where a little taste is desired several designs may be had from the dealer. Every manufacturer realizes the desirability of having attractive roofs and for that purpose has designed roll roofing and shinges with artistic finishes. The color of the coating material also lends attractiveness to the home and the dealer usually has at least four or five colors to offer his customer.

Putting a specialty man in the roofing materials department ought to be a paying investment for every building material dealer. A specialty man can be worked on a commission basis, thereby guaranteeing the dealer the best efforts he can produce. The harder he works the more he will earn for himself.

In addition to the profits made by this specialty man on the sales of roofing materials, the building material dealer can look ahead to future orders, for if satisfaction is given in the sale of roofing materials the owner's confidence is secured and when he is in the market for other building materials he is bound to go where he secured satisfaction.

Traffic News

Suggestions for Shippers.

W. S. Tinsman, chairman of the General Managers' Association, of Chicago, has issued the following circular offering suggestions to shippers:

Two years ago in anticipation of the large tonnage which the railroads would be required to move as a result of the heavy crops of that year, this association appealed to the shippers and receivers of freight for co-operation in obtaining the maximum use of freight equipment. The results of that appeal, and the interest manifested by the shippers throughout the country, were very gratifying.

The present prospect of exceptionally heavy crops, as evidenced by the tables attached hereto, warrants an appeal of the same nature at this time.

In spite of the fact that a great surplus of cars has existed for some time, the surplus of box cars is not so great as to warrant any feeling of security, and unless the co-operation suggested below can be had, the prospects are for a difficulty in moving these crops which may affect disadvantageously the interests of the shippers and receivers alike.

The railroads are making every effort which their resources will permit to put cars in condition for service and in other directions to prepare themselves to handle the traffic with promptness.

Shippers and receivers, commercial organizations and others having to do with the commerce of the country, are earnestly urged to lend their efforts and influence in every way possible to bring about the most economical use of equipment, and the following suggestions are made for which the widest publicity is solicited:

1. Move all the coal, lumber, cement and other supplies that you can before the heavy crop movement starts.

2. Load and unload all cars as quickly as possible. (If, without additional cost, the use of greater force will get the load ready for movement or the car released more quickly, do it).

3. Load all cars to the full capacity. (A leeway of 10 per cent above the marked capacity is permitted before reduction of load is required. All cars should, so far as possible, be loaded to a weight between the marked capacity and 10 per cent above.)

4. Anticipate the disposition of freight before its arrival.

5. Only order such cars as can be loaded promptly. (Orders for cars should state the number required for that day's loading, the kind of cars, the final destination of the shipment, and the routes over which it will move).

6. Reduce to the minimum the practice of billing cars to intermediate points to be held for reconsignment.

Poor Condition of Box Cars.

Judging from the condition which most of the Eastern lines' box cars are in, it is very evident that they needed a five per cent increase in their rates to repair their equipment. It may be interesting to know that out of a string of 122 empty box cars there were only nine of them fit for cement loading. This tip will be accepted by some of the live dealers to stock their warehouses before all the box cars are relegated to the junk pile.

CEMENT RATES FROM MITCHELL, IND.

The Lehigh Portland Cement Co. have filed a very interesting brief with the Interstate Commerce Commission in I. & S. Docket No. 389, covering rates on cement from Mitchell, Ind., to Memphis, Tenn., New Orleans, La., and other Mississippi Valley points, attempting to hold the present rate of 9 cents from Mitchell to Memphis and 12½ cents to New Orleans, which rates the railroads are attempting to advance two cents per hundred pounds.

CEMENT RATES BETWEEN POINTS IN IOWA AND ILLINOIS AND POINTS IN MINNESOTA AND OTHER STATES.

Some very interesting briefs have been filed with the Interstate Commerce Commission in I. & S. Docket No. 408 by the Lehigh Portland Cement Co. and others, protesting against the advance of two cents per hundred pounds in the cement rates generally from Mason City, Ia., LaSalle district and Buffington, Ind., to Minnesota and Wisconsin points. The cement manufacturers interested in this case are now resting on their oars awaiting the call for oral argument in this case before the Interstate Commerce Commission at Washington, which will be some time during October.

CEMENT COMPANY WINS.

The Allentown Portland Cement Co., Allentown, Pa., received notice recently that the Interstate Commerce Commission at Washington has again decided in its favor against the Philadelphia & Reading Railway Co. The cement company about two years ago filed a complaint before the commission, alleging that the rate of $1.35 a ton on cement from Evansville to Jersey City was unreasonable and discriminatory, as compared with the rate of 80 cents a ton from the other mills in Lehigh district to the same destination. The commission found that the rate was unreasonable and discriminatory, as alleged by the cement company, and ordered the railroad company to desist. The railroad company then filed a petition for a rehearing. Additional testimony was taken and the case was again argued before the commission at Washington February last, and again the commission decided in favor of the complainant.

Determination to Win Brings Success.

Persistent Attitude of Hagerstown Dealer Brought Him to the Top Rounds of the Ladder —Novel Method of Securing Loyal Employees.

"Work hard and keep at it," is the slogan that Victor M. Cushwa, of Hagerstown, Md., adopted when he entered the builders' supply business in the month of July, 1886. At that time Mr. Cushwa says he had a capital of $1,500, was just out of college and "as green as grass." "It was hard work," said Mr. Cushwa, "but by keeping at it and working with my head rather than with my hands, I have succeeded in establishing quite a satisfactory business.

"The net receipts of the first month's business amounted to just $3, while the expenses totaled $300. I kept plugging at it, realizing all the while that I was very much like a counterfeit dollar; that is, I was all right as long as I kept going. At that time I had one horse and cart and but a small portion of the 5 acres of property in Hagerstown now used for my builders' supply business. Three acres of this property is under cover and is used for either office, warehouse or stable purposes. With the small beginning my business has developed to where I now have 6 teams, 14 carts and wagons and two motor trucks."

Victor Cushwa is an active man. He is aggressive and far sighted. He is the calibre of man who will read every line of his trade paper with the object in view of securing valuable information therefrom. He declares he is always anxious to learn of new developments in the builders' supply business. He appropriates the best of them to his own use. As a demonstration of the determination behind every one of his thoughts he has placed on display in his office a sign which reads, "Success Comes With Cans." He realizes that the expression, "I can't" never brought a man anything and because of his "I can" attitude and the aggressiveness which he displays in every move, he is identified with a large number of Hagerstown enterprises. At one time he was a director or an officer of 26 different companies. The Hagerstown Country Club showed rapid strides of improvement while he was its president.

Associated with him Mr. Cushwa has the two oldest of his nine children. They are boys and "chips of the old block."

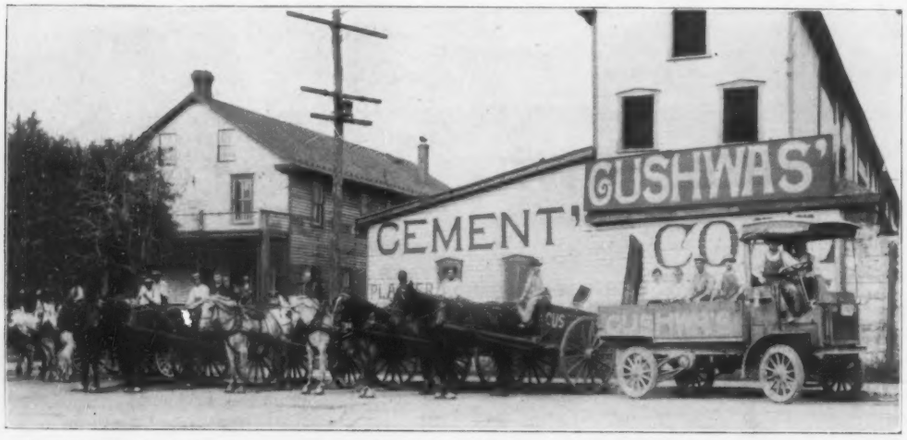
A portion of the present Hagerstown warehouse was built about 1800. In 1872 the present Mr. Cushwa's father, also a Victor Cushwa, engaged on this site in the coal business, later selling it with his builders' supply business to the present owner.

Second Warehouse at Williamsport.

The town of Williamsport is located about six miles from Hagerstown on the Potomac river and on the Ohio and Chesapeake canal. At this place a fair-sized warehouse is owned and operated by Mr. Cushwa and large quantities of builders' supplies and coal are sold to Maryland and West Virginia points adjacent to Williamsport.

Little if any trouble is experienced by Mr. Cushwa in the employment of his workmen. He explained this by saying that it has always been his policy to hire young men and to help them along as they grew older. When a young man in his employ announces the fact that he is about to be married, Mr. Cushwa voluntarily assists him in the purchase of a home of his own, oftentimes advancing the initial payment on the buildings thus purchased. "This makes the boys loyal to me," he said, "and I am sure there isn't one of them but what would do anything that I requested of him. I show no partiality between white and colored help. Efficiency is what I am after and I soon find out whether a man can produce it; if he cannot I let him go immediately. If he has ability and shows it, he is just the man I want and I stick to him." At the present time Mr. Cushwa has in his employ 150 men.

At the Williamsport, as well as Hagerstown Builders' Supply Yards, a full line of coal and wood is always carried in stock.



OFFICE AND WAREHOUSE OF "CUSHWAS'" BUILDERS' SUPPLY BUSINESS AT HAGERSTOWN, MD. IN THE REAR OF THESE BUILDINGS ARE LOCATED FIVE ACRES OF YARDS, THREE OF WHICH ARE UNDER COVER. THE FIGURE WITH A STRAW HAT IN THE BACKGROUND IS VICTOR M. CUSHWA.

Mr. Cushwa is also engaged in the brick manufacturing business at Williamsport, putting out an artistic red press brick. He is a real Hagerstown and Williamsport booster. He secures valuable information relative to the development of his city and as readily imparts it to others. When asked what improvements had been made recently in Hagerstown, he replied, "Bradstreet gave Hagerstown seventh place in the United States in point of improvements. At one time there were 400 houses under construction."

Wilkes-Barre's New Building Code.

Joseph G. Schuler, owner of the Wilkes-Barre Masons' Materials Co., is one of the five Commissioners of the city of Wilkes-Barre, Pa. He is superintendent of the fire, building and public property departments of the city and largely to his influence, in connection with the local architects and builders, the city council has just adopted a new building code. This code has been pronounced the most modern of its kind in the eastern part of the country.

The heights of buildings are regulated to range from not more than 16 stories or 200 feet in the first class to under 40 feet in the seventh class. The height of no building, however, shall exceed four times the width of the street upon which the structure faces and no building shall be over 200 feet in height. The heights are also governed by the widths of structures.

The code controls the seating capacity of a theatre; the ventilation of similar public buildings and safety from fire. Heretofore when a person erected a building or other structure it was necessary to do business with more than one city department. Under the new code, all business will be done with the department of buildings.

DAILY SCENE IN "CUSHWAS'" YARD AT HAGERSTOWN.

There are seven classes of buildings, as follows:

First—Built entirely of incombustible fire and waterproof material.

Second—Similar in construction to first class except that the finished floors, frames, doors, windows and the usual trim of rooms are of ordinary wood with no open spaces behind the wood.

Third—Wall or metal frames similar to those of second class, but the floor fireproofing is made in long flat spans and panels of reinforced, or armored, concrete, with partitions built wholly of incombustible material.

Fourth—When enclosing walls and roof covering are made of incombustible materials with doors, windows, etc., of wood, but with interior walls of brick or steel and fireproof beams and ceilings.

Fifth—When enclosing walls and roof are of incombustible material with interior walls of brick with floor and roof systems of heavy timbers with no concealed air spaces between.

Sixth—When enclosing walls and roof are similar to those in fourth and fifth class, but with interior timber and iron parts not protected with fire-resisting covering.

Seventh—When enclosing and interior partitions are constructed entirely of wood.

The New England Sand & Lime Co., of Hartford, Conn., has filed a certificate of dissolution.

The Pennsylvania Stone, Cement & Supply Co., of Lancaster, Pa., has been incorporated by H. L. Trout, with a capital of $20,000.

John A. McCarthy & Co., of New York, has been incorporated with $25,000 capital to deal in building materials and conduct a contracting business. The incorporators are: J. A. McCarthy, F. J. Higgins and W. J. Allen, all of New York.

"CUSHWAS'" WILLIAMSPORT WAREHOUSE. THE WATER PICTURED TO THE LEFT IS THE CHESAPEAKE AND OHIO CANAL. STANDING FROM LEFT TO RIGHT THE MEN ARE THOME B. CUSHWA (SON), VICTOR M. CUSHWA (OWNER), DAVID K. CUSHWA (BROTHER) AND THREE EMPLOYEES.

N. B. S. A.

Closer Affiliation Needed.

"At least active national trade organizations on broad lines would be highly valuable as a means of getting the sense of the country on various questions of national importance."

The foregoing sentence is taken from an editorial which appeared in the "Saturday Evening Post" of Aug. 15, on the subject of "National Guilds," and brings us right to the point that should be uppermost at this time in the minds of those engaged in association work, and should also furnish considerable subject for thought to those who have not as yet been made to realize the advantages that lay therein, or who, for some reason or other, have failed to take up their share of the work.

Where can we find a better field for action along the lines indicated and more real necessity for same than in the building supply business. Every day we might say that occasions arise for united action on topics particularly related to the industry, and still we know that the influence that should be visible is lacking, and the supply dealer as a rule is represented by proxy, if at all.

Getting right down to the facts in the matter, is there any real excuse for this condition of affairs existing, and the answer must be "No." There are approximately 8,000 building supply dealers scattered throughout the country representing an amount of capital so large that when the occasion demands that they should be heard, they should be so well organized that it would be a simple matter to set in motion the wheels of action.

There are many examples of this desired unity, and perhaps the best that we have before us today are the trades union organizations, and who is there that can deny the effectiveness which they display?

Admitting, however, that all this is true, there is every reason for the building supply men to be optimistic, because we see around us every day evidences of increasing interest on his part towards these matters, and he is fast realizing that considerable good awaits him in the successful culmination of the movement that is sweeping across the country. Local organizations are being formed in many localities and will continue to blossom forth, and the natural consequence must be a uniting of these forces under the banner of a state association and finally the affiliation of the various state bodies in one national body, all working so harmoniously and effectively that the results desired cannot help but be secured. All that now remains to be done is a continuance of the efforts of those who are working to secure these ends, and it is to be sincerely hoped that the necessary co-operation will be evident on all sides, which can only spell but one result, Success.

N. B. S. A. NOTES.

Preparations are going on for the Sixteenth Annual Convention, which is to be held in Chicago on Feb. 8 and 9, 1915. It will be noted that the convention is booked to close just one day prior to the opening of the Cement Show, and this fact should increase the attendance at the convention.

Association officers are busy these days working on a proposed cost system which will be applicable to all branches of the building supply business, whether large or small. It is a big task, but when completed will prove to be a big thing for the dealer.

The new form of application which is now in use, entitled "Our Program," has meet with universal approval and, being what might be termed self-explanatory, it is to be hoped that the members will strive to make good use of them. Every member could at least secure one application, and in doing so will serve to hasten the results which all are desirous of.

Mr. G. D. Elwell of Albany, N. Y., and Mr. R. D. T. Hollowell, secretary of the American Face Brick Association, were callers at headquarters during the past week.

NOTES OF O. B. S. A. MEETING.

(Continued from page 28.)

Casey Co., of Pittsburgh, was a record job to his knowledge in the handling of concrete.

Ben McCausland was the only U. S. G. man there, except young Ben, who, by the way, is some plaster man himself.

Secretary Neeley came in a little late, but he can do a lot of work in a short space of time when he gets on the job.

W. O. Holst and wife and Frank Jones and wife, of Toledo, drove over and reported the shore line more rugged than ever, but enjoyed every minute of the outing.

Frank Olemacher, a hustling builders' supply man from Sandusky and general superintendent of the Kelley Island Co.'s operations, enjoyed a visit with his neighbors from the rest of the state.

Charles L. Johnson, of the Atlas Portland Cement Co., was on the reception committee and tried to make everybody feel that the "Point" was owned by the builders' supply men. He has lived for a good many years about Sandusky, therefore was a regular information bureau for everybody.

The Fishack boys, L. E. and Ed., were over from Toledo as well as Kiracofe.

Charles O'Donnell, of Bellefontaine, came in at a late hour but he was certainly welcome.

The Kelley plaster folks of Sandusky were very busy trying to make everybody enjoy themselves.

The ladies' delegation was quite a large and enthusiastic one; you will see a picture of some of them. One of the chief chaperons was "Grandpa" and "Grandma" Holst, of Toledo.

"Red" Murray was about the most hospitable chap around the place; you would have thought he just brought Wampum up to the Breakers and was trying to make everybody happy. He succeeded, too.

The American Plaster Co.'s conference, headed by J. A. Henley, got in touch with a lot of their customers. William Shearer, of Columbus, Undine and Roy Henley also shared in the discussion of business conditions and reported a fair volume of orders.

Arthur Black, of the American Gypsum Co., Port Clinton, Ohio, was as usual about the busiest man on the job. If he was not running the baseball game he was teaching people to swim or doing other things to make people happy. There is nothing like it.

The many friends of "Buster" Brown, who came in from Grand Rapids on Saturday, accompanied by Mrs. Brown, to enjoy this outing, will regret to learn that after leaving Cedar Point he had a nervous breakdown and after four or five days' gradual demoralization of his robust, healthy body he died on Sunday last at Grand Rapids and was buried Wednesday of this week. "Buster" was the sales specialist of the Huron Portland Cement Co. and was well and favorably known in Michigan and around the lakes. He was a kindly soul and we will all miss him.

LAKE AND RAIL RATES SUSPENDED.

Washington, Aug. 18.—Proposed increases in freight rates on cement in carloads from eastern Pennsylvania by rail and lake to Duluth, Chicago and other western points have been suspended by the Interstate Commerce Commission until November 17. The increases ranged from 20 to 72 cents a ton.

NATIONAL BUILDERS' SUPPLY ASSOCIATION.
Chamber of Commerce Bldg. Chicago, Ill.

Application for Membership.

The undersigned being hearfily in accord with the "Constitution" and eligible to membership in the National Builders' Supply Association under requirements of Section I, Article 3 (ACTIVE), or in Section I, Article 4 (ASSOCIATE), does hereby apply for membership:

Firm name.....

Signed by.....

P. O. Address.....

Date.....

Officers.

President—Edw. K. Cormack, Chicago.
Treasurer—John J. Voelkel, New Orleans.
Secretary—L. F. Desmond, Chicago.

Directors.

J. H. Allen, Lincoln, Neb.
Charles Warner, Wilmington, Del.
C. N. Ray, Detroit, Mich.
W. F. Jahncke, New Orleans, La.
C. M. Kelly, Providence, R. I.
W. W. Coney, Cincinnati, O.
L. W. Macatee, Houston, Texas.
D. J. Kennedy, Pittsburgh, Pa.

CONCRETE

Salem Conflagration Demonstrates Durability of Concrete Construction

Fireproof Storehouse Unharmed by Catastrophe of June 25, Which Destroyed 1,600 Buildings and $14,000,000 Worth of Property.

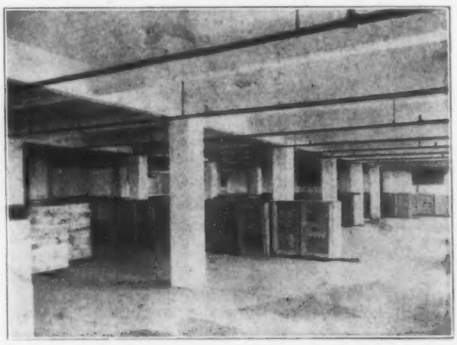
One of the most remarkable and almost marvelous features of the terrible conflagration that attacked the city of Salem, Mass., on June 25 is the fact that although entirely surrounded with structures of frame and semi-fireproof materials and located in a place where the heat was so terrific as to drive the fire fighters away and to melt the wired glass windows, yet a reinforced concrete storehouse was entirely saved and the heat and flames so retarded that the fusible links connected with the sprinkling system in the building were not affected.

The building was used as a storehouse for finished products by the Naumkeag Steam Cotton Co., and was surrounded by buildings of the cotton company on the east and north and tenements on the south and west. Burning of the splendid property of the Naumkeag Steam Cotton Co. was Salem's heaviest and most significant loss, according to the National Fire Protection Association, which has made a complete investigation of the situation in Salem.

In connection with the destruction of the thickly populated tenant district directly adjoining, the loss of the Naumkeag Steam Cotton Co.'s property turned upon the city a horde of workless men and women, destitute and in immediate need.

The company had apparently given the utmost attention to preparing its structures so that they would be able to resist any fire that might attack them. The main manufacturing buildings were five stories high and of standard mill construction with brick walls. There was a one-story weave shed with sawtooth roof, a four-story reinforced concrete storehouse for finished goods, some frame cotton houses and a frame building occupied as a cloth hall. The general arrangement of these buildings is shown on the accompanying plan. As a whole the construction of the property was rated fully good.

The mill yard was surrounded by water on three



INTERIOR OF REINFORCED CONCRETE BUILDING AFTER THE FIRE. NOTE PERFECT CONDITION OF BUILDING AND CONTENTS.

sides; on the other was the tenement district that constituted an increasing exposure as the district grew.

The property was thoroughly sprinkled, the yard pipe had been recently strengthened and was modern and ample; the supply of water was furnished

PHOTOGRAPH OF A PORTION OF THE DISTRICT IN SALEM, MASS., RUINED BY THE CONFLAGRATION OF JUNE 25-26, 1914.

EXTERIOR OF REINFORCED CONCRETE STRUCTURE. ONLY BUILDING IN THE BURNED DISTRICT WHERE THE STRUCTURE AND ITS CONTENTS WERE NOT IN THE LEAST DAMAGED.

from eight-inch connections from 12-inch city mains which were in turn connected at a distance of 1,000 feet by a 20-inch main. In addition to this, there were two 1,000-gallon Underwriter pumps well located in the pump room north of the boiler house; these sucked their water from the South river adjoining.

The fire which started in the unsprinkled frame factory at Boston and Proctor streets at 1:30 p. m., did not reach the site of the Waumkeag Steam Cotton Co. until 7 o'clock that evening. The first direct attack was on the wooden cotton storehouses at the south side of the plant; next striking No. 6 weave shed. The heat was so terrific at this point as to compel the men who were fighting the fire to retreat. In a short time the other buildings were rapidly attacked, the fire spreading to No. 1 mill and then attacking the group adjacent thereto. The only building which escaped unharmed, with the exception of the melting of the wired glass windows, was the reinforced concrete storehouse No. 1.

This building is of reinforced concrete construction, walls, roof and floors. There are some small wired glass windows in metal sash, mostly fixed, which are protected in addition by wood tin-clad shutters on the side of the building, hinged at the top and swinging vertically, and these were held open normally by fusible links. These links all melted and allowed the shutters to close. Two stories of this building contained finished goods in cases, but although the building was exposed to the full force of the conflagration on the west side, so completely did the window protection do its work, and so well did the concrete walls stand up against the flame that fire did not enter the building. Not a sprinkler opened, and the contents are intact. The damage to the building is so slight as to be almost negligible, and while the wired glass windows in several cases suffered so much heat that they softened and bulged out at places, and in one case completely melted out, yet the interior shutters withstood the attack, and did not allow the fire to enter the building.

The Naumkeag property stood on a point of land bounded on three sides by Salem Harbor. During the early years of its development the land on the fourth side was vacant, or sparsely settled. Grad-

SKETCH OF THE NAUMKEAG STEAM COTTON CO.'S OPERATIONS. THE BUILDING IN THE CENTER AND JUST BEHIND THE ARROW IS STOREHOUSE NO. 1, THE REINFORCED CONCRETE BUILDING WHICH WAS SAVED.

ually this territory became coverd with wooden buildings; and this fact had been appreciated, but it was felt that the protection available could safeguard the mill.

The chief lesson is that to defend a property successfully against a conflagration, all buildings must be fire resistant toward the point of attack.

The tremendous power of an advancing conflagration with the fire-brands, flame, smoke, and heat

TWO VIEWS OF FIRE SHUTTER USED IN REINFORCED CONCRETE BUILDING. NOTE COLLAPSED WIRE GLASS AND EFFECTS OF HEAT ON THE SHUTTER IN THE FIRST VIEW AND, IN THE SECOND VIEW, THE FIRE SHUTTER WHICH CLOSED AUTOMATICALLY BY THE MELTING OF FUSIBLE LINK.

carried before it will overcome anything except the best construction protected with reliable apparatus and defended by courageous men, disciplined to do good team work.

The use of concrete in this particular instance and its ability to withstand the terrific onslaught of the flames that attacked the building on all sides clearly demonstrates the absolute necessity of fireproof construction and the advisability of building not only the walls of concrete, but the roof and floors as well. In this terrific conflagration in which 1,600 buildings were destroyed in 13 hours, 253 acres of property made desolate and $14,000,000 worth of property burned to ruins, not an article in this building was even as much as damaged by smoke or water; the concrete entirely protected the contents of the building as well as the structure itself. Had the heat of the flames been given an opportunity to reach the interior of this structure the fusible links connected with the sprinkling system would have immediately melted and the goods become damaged by water, but the concrete structure lived up to the reputation of the material from which it was composed and not only saved the building and its contents from ruin, but also from damage.

An Interesting Bridge.

One of the most important bridges in Chicago and the largest of its kind in the world is just being completed by the Pennsylvania Steel Co. for the Pennsylvania Railroad at 20th street and Stewart avenue, over the south branch of the Chicago river. The bridge is of the Wordell-Harrington type, built under the supervision of Thos. Earle, superintendent of the Pennsylvania Steel Co. All of the construction details, with the exception of the concrete foundations and the electrical installation, was carried out under the direction of Jas. A. Johnson, foreman on the job.

Work was begun on the bridge the first of October last and, with the exception of the electrical features, was ready of operation by July 1, the latter requiring until July 29 to complete.

A notable feature of the bridge is the concrete counterweights which raise the span, which is 272 feet six inches from center to center, to a height 120 feet clear. This operation requires only 1½ minutes, thus proving its efficiency in meeting the requirements made necessary by the 90 to 125 boats and barges which pass under it daily.

The Concrete Counterweights.

The concrete counterweights which are suspended by steel hangers from the steel towers at either end of the bridge have a total weight of 1,648 tons, or 824 tons each, of which 15 tons represent the steel reinforcement. Each counterweight is composed of two sections to allow for expansion and contraction,

CONCRETE CHARCOAL KILNS IN MEXICO.

each section reinforced by a double steel box with X diagonals. A mixture of one part Universal Portland cement, two and one-half parts of torpedo sand and five parts of copper slag was used. The latter material weighs 156 pounds to the foot and was employed to lend weight to the counterweights. Thirty-two cables, two and one-eighth inches thick, support the counterweights, and are suspended from sheave wheels, eight in all, 15 feet 10 inches in diameter and weighing 30 tons each.

The towers at either end of the bridge are 195 feet high to sheave wheel pin center. There was 3,500 tons of steel used throughout the bridge. The structure is operated from the building in its center, as will be noticed in the accompanying pictures, and admits 350 trains daily over its two tracks.

Concrete Charcoal Kilns.

Scattered through the timbered districts of Mexico are to be seen many charcoal kilns built of concrete and of beehive shape. Some of these kilns show a uniqueness of design and construction that affords an interesting study to one who may be interested in the principles of charcoal burning. Upon the ranch of Edwin Chamberlain, of San Antonio, situated in a remote part of the state of San Luis Potosi, are several of these concrete kilns. The wood is brought down from the higher slopes of the mountains by peons on the backs of burros. The charcoal is marketed in the villages and towns where wood and other fuel is scarce. In most of the Mexican homes such a thing as a heating stove is unknown. In the higher altitudes in winter, and even during the chilly nights of summer, a brazier of live charcoal in the single room of the lowly hut serves to give the occupants a certain amount of warmth.

Obituary.

Francis Henry Oakes, roadway engineer and member of the concrete road promotion bureau of the Universal Portland Cement Co., died on Aug. 16 after an illness of less than a week. Appendicitis was the cause of his death.

Mr. Oakes entered the ranks of the cement industry employees on Jan. 15, 1912, when he was engaged by the sales department of the Universal Portland Cement Co., for the purpose of promoting concrete roads. As an engineer he was an expert and in the territory of northern Illinois and Cook county, where he labored, there are hundreds of men who first knew him as a business acquaintance but who today mourn his departure as ardent admirers and friends. Not only is this true of the business men whom Mr. Oakes met, but it is the universal testimony of all who knew him. He was a capable man with a very strong and estimable character; his disposition appealed to every one and his courteous manner made him a loveable fellow. He was but 33 years old and had the prospects of a very bright future.

Mr. Oakes was buried from the chapel in Graceland Cemetery at 2 p. m. on Tuesday, Aug. 18. The Universal Portland Cement Co. was represented at the funeral by a delegation of its employees.

BRIDGE OF PENNSYLVANIA RAILROAD CO., SHOWING CONCRETE COUNTERWEIGHTS ELEVATED PERMITTING PASSAGE OF TRAIN OVER ITS TRACK.

VIEW SHOWING CONCRETE COUNTERWEIGHT LOWERED SO AS TO PERMIT AN APPROACHING STEAMER TO PASS UNDER.

CEMENT

Philadelphia Cement Business Active.

Optimism Caused by Action of Railroad—Atlas to Authorize Bond Issue.

Philadelphia, Pa., Aug. 19.—The cement business in this city and vicinity continues to be active, due chiefly to the erection of many large buildings throughout the city that are now nearing completion and ready for the cement work. According to most of the cement manufacturers and distributors the demand thus far is fully up to that of last year and as a general rule business holds remarkably well and the outlook is considered good.

After being closed down for repairs the past six months, Mill F, of the Lehigh Portland Cement Co., at Ormrod, Pa., will again resume operations. As soon as this mill is running smoothly, Mill D, at the same place, will be shut down for repairs, Mill F taking the place of the one closed.

The Vindex Portland Cement Co., of Molltown, Pa., incorporated on December 8, 1906, has applied to the court for a decree of dissolution. The company has no debts or liabilities. The date for the hearing was set for August 31, at 10 a. m.

Local cement manufacturers and distributors see especially good signs in the ordering by the Pennsylvania railroad of over 100,000 tons of steel rails. This is regarded as the forerunner of increasing activities that can mean nothing to the cement industry but exceptional prospects.

Stockholders of the Atlas Portland Cement Co., 1012 Morris building, this city, will hold a special meeting on October 14 to authorize an issue not exceeding $10,000,000 of new bonds, and an increase from $1,500,000 to $3,000,000 in preferred stock. The bonds are to be used only for refunding purposes or for acquiring new property or making permanent improvements. The stock is to be offered to shareholders at par. It is said no early issue of the bonds is contemplated.

MAY BUILD BIG CEMENT PLANT.

Recent advices are to the effect that a mammoth cement plant will be constructed in Snohomish county, Washington, by Galbraith, Bacon & Co. The establishment of this plant has been made more certain by the decision of Commissioner Clay Tallman of the general land office, denying the contentions of the forestry service which sought to uphold the Pinchot policy of conservation, thus holding up untold quantities of limestone and clay worth millions of dollars for the manufacture of cement. Whether a cement plant will at once be built is a question which the owners have not yet determined. Changes in the condition of the money market and other factors may delay the building of the plant for a short time. J. E. Galbraith, Cecil H. Bacon, W. W. Austin, Walter E. Galbraith, L. L. Harding, George H. Bacon, Morris Leehey and M. J. Galbraith are the locaters of the claim.

CEMENT MILL DESTROYED BY OWNERS.

Dittengen, Switzerland, Aug. 18.—The great Portland cement mill which has been the pride of this town because it represented its principal industry was blown to pieces with dynamite by its owners on June 27 under the supervision of local police. The great mill has recently been bought by a French and Italian syndicate and was closed as unnecessary to the system of the new owners' operations. As the syndicate had to continue to pay taxes upon the same basis as if the cement mill was in full operation it decided to destroy the works. Charges of dynamite were placed under the tall brick chimneys and at numerous places beneath the walls of the buildings throughout the plant. These were all connected by means of a wire and simultaneously exploded by electricity, and the whole place became a mass of broken walls and twisted machinery in an instant.

PURCHASING NEW EQUIPMENT.

The Lawrence Portland Cement Co., Siegfried, Pa., and Whitehall Cement Mfg. Co., Cementon, Pa., have just ordered Bradley Hercules equipment. This act on the part of the cement companies after previous installations of Bradley Hercules mills demonstrates the practicability and successful operation of the mills now in use.

According to the manufacturers, Bradley Hercules mills have been breaking records for output and for small amount of horsepower used per ton of material ground. The Bradley Hercules mill when grinding clinker has an output of from 100 to 130 pounds per hour used as a preliminary breaker, grinding to a fineness of 50 per cent through a 100-mesh sieve, using in the neighborhood of 175 horsepower. When pulverizing limestone it has an output of from 30 to 40 tons per hour to the same fineness. This is a remarkably large output for the amount of horsepower used.

Reports given on upkeep cost of grinding 125,000 barrels of cement was much less than one-half cent per ton.

The Bradley Hercules mill is not an experiment. Several cement plants have them in operation and the users seem to be enthusiastic over their successful performance. In asking questions as to the practicability of their mill, the Bradley Hercules people express a desire that investigators should write direct to the users and obtain from them their view of the mill as a cement material pulverizer.

The heavy windstorm of July 23 unroofed several of the buildings of the Peerless Portland Cement Co.'s plant at Union City, Mich.

The Arizona Portland Cement Co., of Phoenix, Ariz., has been reorganized as the Phoenix Portland Cement Co., and needed additional capital has been secured for improvements of the plant at Tempe, Ariz., and for immediate operating expenses.

The Atlas Freight Line on the Mississippi River is loading 100 cars with Portland cement regularly at their St. Louis docks for deliveries at river landings between St. Louis and New Orleans. The cement is carried by rail from the big mill at Hannibal to St. Louis to get the advantage of the superior loading facilities of that port.

The Chicago, St. Louis & Gulf Transportation Co., the first regular line of packets to be established between Chicago and the Mississippi River by way of the Hennepin and the Illinois and Michigan canals, are handling considerable Portland cement in their westbound trips. The Chicago Portland Cement Co. and the Marquette Cement Manufacturing Co. have loaded several full cargoes at their plants near the LaSalle basin consigned for western river ports.

SOUTHERN COMPANY REORGANIZED.

Birmingham, Ala., Aug. 18.—The properties of the Atlantic & Gulf Portland Cement Co. were sold for $630,000 to the bondholders of the properties represented by G. R. Hartman, of Mittendorf, Williams & Co., bankers of Philadelphia. The properties consist of the plant of the company at Ragland, and the real estate in that neighborhod used for the operations. It is expected that the company will be reorganized as the Coosa Cement Co., and that John B. Stevenson will be elected president. The new company has a working capital of $200,000.

TO COUNT AND BUNDLE SACKS.

An automatic sack bundling and counting machine for taking care of cement bags has been put on the market by the Faeberhill Manufacturing Co., of Cleveland, Ohio. By this machine the counting is done automatically, a counter being set to make the bundles in any desired number. When the required number are placed on the machine a bell rings, a lever is pulled down, a handle turned, and the bundle of sacks is securely tied with wire, ready for shipment.

T. J. Fleming, general manager of the California Portland Cement Co., at Coalton, Cal., announces that the capacity of the plant is soon to be doubled by the expenditure of approximately $1,000,000.

St. Mary's Cement Co., Ltd., recently incorporated, will erect a plant at St. Mary's Ont., with daily capacity of 1,200 barrels. Mail may be addressed in care of F. O. Saunderson, Queen street, St. Mary's, Ont.

The Ogden Portland Cement Co. and the Union Portland Cement Co., both of Ogden, Utah, has been authorized by Secretary of the Interior Lane to furnish the reclamation service with 11,000 barrels of cement for use in the Jackson Lake dam of the Minidoka irrigation project in Idaho. Each company will furnish 5,500 barrels, the price in either case being $1.33 per barrel at the plants at Baker and Devil's Slide.

Coosa Portland Cement Co., Ragland, Ala., capital stock $200,000, has been organized, according to recent advices, with John B. Stevenson, of Philadelphia, as president. The new company will acquire Atlantic & Gulf Portland Cement Co. plant bid in July 2 by G. Ransom Hartman, of Baltimore, representing bondholders of Atlantic & Gulf corporation. The new management proposes extensive improvements, details not determined. The present monthly capacity is 30,000 barrels of Portland cement.

The Fuller Engineering Co., of Allentown, Pa., is building a new, modern cement plant for the Dominion Portland Cement Co., Ltd., at Wangarei, Auckland, New Zealand. The equipment will consist of a large jaw crusher, two No. 6½ gyratory crushers, one hammer mill, one crushing rolls, two 7x70-foot stone dryers and six 42-inch Fuller-Lehigh pulverizers for raw material; two 8½x160-foot rotary kilns, two 7x70-foot rotary coolers, four 57-inch Fuller Dreadnaught mills for pulverizing the cement; one 24x18-inch crushing rolls, one 5½x42-foot indirect fired rotary dryer and two 42-inch Fuller-Lehigh pulverizers for preparing the coal.

LIME

THE LIME AND STONE CRUSHING PLANTS OF THE SECURITY CEMENT AND LIME CO., BERKELEY, W. VA.

Improved Methods Produce Best Results

Lime Manufacturing Plant at Berkeley, W. Va., Operated so as to Prevent Impurities from Reaching Finished Product.

With the object of manufacturing the best possible grade of lime, the Security Lime & Cement Co. is using producer gas exclusively in burning its lime at the Berkeley, W. Va., plant. The officers of this company state that there is no possibility of the lime becoming contaminated by ashes, cinders, or other foreign matter. They further declare that the producer gas has the advantage of allowing a more uniform and even temperature to be maintained throughout the burning zone of the kiln, thus doing away with the production of "core" or underburned lime.

The kilns used at the Berkeley plant are of a modern type. Each kiln has a capacity of 1,400 bushels of lime per day of 24 hours. The limestone secured at the quarry has a very high percentage of carbonate of lime, running to 98.8 per cent. The balance of the rock is made up of silica, 1.1 per cent; alumina and iron oxide, .9 per cent; carbonate of magnesia, .9 per cent.

By the use of automatic conveyors, a great deal of time is saved in the Security lime plant and economy is practiced to the greatest extent. The burned lime is taken directly from the kilns by means of automatic conveyors to a crusher, where it is reduced to about the size of hickory nuts. Another series of conveyors and elevators carry the cracked lime from the crusher to an enclosed steel bin. Directly beneath this cracked lime bin is located the granulator, which reduced the lime to a fine powder. From the granulator the material is taken mechanically to a tightly enclosed sealed bin. By the use of these steel bins the quicklime, whether in lump, cracked or ground state, is kept free from contact with the atmosphere. This naturally reduces the amount of air slaking to the lowest possible limit.

Products of Plant.

The products of this plant are lump lime, which is sold either in barrels or in bulk; ground lime, packed in 80-pound paper bags and 167-pound cloth bags, and hydrated lime, packed in 40-pound paper bags and 100-pound cloth bags.

Production of Hydrated Lime.

In producing hydrated lime, the ground lime described above is taken directly from the storage bin and accurately proportioned and mixed with water so as to insure its thorough slaking. This slaking is done in an enclosed rotary hydrator. Under or over burned particles of lime or any foreign matter which may have been mixed with the lime are removed by means of air separation. The finished hydrate is stored in large steel bins tightly enclosed.

SALES FORCE OF THE SECURITY CEMENT AND LIME CO., ON THE STEPS OF THE HAGERSTOWN COUNTRY CLUB.

Underneath the storage bins both for ground lime or hydrate are automatic packing machines, so that the material is taken directly from storage and put into the finished packages without rehandling or contact with the air.

In connection with the lime plant at Berkeley the Security Cement and Lime Co. operate a stone crushing plant. At Hagerstown, Md., the cement manufacturing plant is located.

The sales department of the Security Lime and Cement Co. consists of 11 men, all of whom were entertained recently by the officers of the company at the Hagerstown Country Club. John J. Porter is in charge of the business office at Hagerstown, while J. K. Barbour is sales manager.

High-Water Mark for Lime.

The manufacture of lime in the United States in 1913 broke all previous records, the production amounting to 3,595,390 short tons, valued at $14,648,362, according to R. W. Stone, of the United States Geological Survey. This was an increase over 1912 of 65,928 tons in quantity and of $678,248 in value. The average price per ton in 1913 was $4.07, as compared with $3.96 in 1912 and $4.03 in 1911. While Pennsylvania is the largest producer, the output of this state is only 2.36 per cent of the total, indicating the wide distribution of the industry; in fact, 44 states reported to the Survey a production of lime in 1913.

Lime used in building operations represents nearly a third of the total output, but large quantities are sold to chemical works, sugar factories, tanneries, etc., as well as to farmers for broadcasting on agricultural land.

The Maryland Agricultural College has been granted an appropriation of $10,000 for the analyzation of soils to determine the adaptability of the various types of Maryland soils, and will begin this work as soon as the appropriation is available. These tests will determine if the soil needs lime or fertilizer and what kind, and will doubtless do a great service not only in behalf of the farming public but the producer of lime products as well.

The lime and cement plants of the North Lime & Cement Co., Newark, N. J., were damaged by fire recently to the extent of $15,000. The structures constituting the North company's plant were wiped out entirely, and large quantities of lime and cement were rendered utterly useless by the water poured on the blazing structures. The loss is well covered by insurance. Although no official announcement of the firm's intentions for the future have been ascertained as yet, it is generally believed that the burned plant will be rebuilt at its present location.

QUARRY OF THE SECURITY CEMENT AND LIME COMPANY, BERKELEY, W. VA.

The Practical Viewpoint

The West Virginia Agricultural Experiment Station makes an official statement to the effect that no general improvement in the worn-out lands of that state can take place until a very general application of lime to the soil has been accomplished. Their report goes on to state that since the mountains of West Virginia have numerous ledges of lime rock it would be very desirable for some good Samaritan to manufacture the lime for next to nothing for this charitable purpose. In this particular the reports of the Agricultural Experiment Station generally are to be criticized, for their suggestions in this line coming for the most part from impractical college professors and inexperienced college boys are always made without any realization of the indispensable commercial factors that go to make up the element of success and economy in the production of lime. The farmers and planters of West Virginia or any other state can well afford to pay a much greater price than any quotations we know of for agricultural lime and devote their capital and energy to the farming business, rather than attempt to manufacture a produce which has so many technical details surrounding its successful operation as that of quarrying rock and burning lime. If the total product of a lime plant were to be sold "run of kiln" to the agricultural trade at current prevailing prices the establishment could not survive a single season, and there has yet to be recorded the first instance of a lime operation that proved a success or could survive without the management of men who have learned the very difficult business of first producing a good material and next finding a satisfactory sale for all of the various grades produced. Little mistakes in the lime business cost prodigiously and the process of learning the business will take more capital than the purchase and installation of equipments. The location of the plant with reference to the freight rates of the different grades of material to their respective markets will amount to more than the income of the total volume of agricultural lime that any plant can turn out. Again the lime business is conducted upon a very narrow margin and the competition is very keen, while agricultural lime is the cheapest grade of material that a lime plant produces.

These remarks anent the suggestion so broadly set before the users of agricultural lime can have but one result, to be reached over two routes. Either the farmers whose land is sour and needs the application of lime to correct the acidity and restore the humus, will conclude that the lime manufacturer who is furnishing the product to him is making enormous margins of profit and make him so discontented thereby as to make him decide to abandon the use of liming from pure "internal cussedness" or it will induce him to undertake either alone or in conjunction with a number of his associates to attempt to manufacture their own lime. In this way to cut out the patronage of the lime magnate who is getting all the farmers' money as they are made to see it by the suggestions contained in the report. Then the chances are 99 to 1 that they will make a product that is not fit for anything and lose more money in one year than it would take to thoroughly lime their soil for a generation or more. Here is no discouragement for the expansion of the industry when based upon intelligent commercial expansion. When directed by the indispensable knowledge of the business that will prevent the indiscriminate installation of lame duck plants of which "the Lord knows" there are plenty in the lime business that had no place to start from in the beginning, have never gotten anywhere, and are not headed in any intelligent direction.

It is all right for the agricultural experiment station to inform the farmers and planters of what their soil needs and to instruct them how to apply the remedy, but it is out of place for these purely technical establishments to persistently make purely commercial suggestions broadcast to their clients without any investigation whatever. Their offers to make the chemical analysis free for the farmers of any and every sample of rock submitted sounds to the average farmer something like the securing of a scientific formula or recipe for his success in the undertaking of burning his own lime. Now as a matter of fact we are very well acquainted with a large number of very brilliant men of scientific training who have given a lifetime of study to one only of the many essential details of successfully producing lime and none of these or all of them taken together are so "cock-sure" of success as are intimated in the suggestion of the average agricultural experiment station.

WHEN TO APPLY LIME.

The best time to apply lime, says M. A. Batchell, of the College of Agriculture, Ohio State University, is during the preparation of the seed bed for corn. The thorough cultivation of this crop mixes the lime with the upper soil. By the time the clover is sown on that soil the lime has changed it from a sour to a sweet condition. The time for applying lime, however, admits of wide variation. Usually a busy spring compels the farmer to spend his time in getting ready for the season's planting. If liming is neglected it can be done at the time of the preparation of the seed bed for wheat. Lime should not be applied to the surface and immediately plowed under, as this tends to place it too far from the surface where it is needed. Neither should the caustic forms (hydrated lime and quicklime) be applied in connection with manure and fertilizers. It is better to plow the manure under and put the lime on top of the soil. In case the manure is desired for top dressing the lime should be worked into the soil at least two weeks prior to application of the manure. Likewise it is well to apply the lime some time previous to commercial fertilizers.

TO BUILD MODERN HYDRATED LIME PLANT.

Ground has been broken for the new hydrated lime plant and pulverized limestone plant of Steacy & Wilton Co., Wrightsville, Pa. Richard K. Meade, chemical, mechanical and industrial engineer, 202 N. Calvert street, Baltimore, Md., is the consulting engineer and the Steacy-Schmidt Mfg. Co., York, Pa., are the contracting engineers. The hydrating plant will be one of the finest ever built and will have a capacity of 75 tons per day. The building will be of steel and the machinery will be driven by individual motors. The plant, like that of the Louisville Cement Co., Milltown, Ind., also designed by Mr. Meade, is unique in that it contains only one elevator and has been designed both for efficiency of operation and quality of product. The latter will be very high, as the lime manufactured by Steacy & Wilton Co. now enjoys the reputation of being one of the purest high calcium limes found in the country.

Grant Gravel Co. wishes to announce that owing to the large increase in business they are now located in more commodious quarters in the Flatiron building, at Market, Sutter and Sansome streets, San Francisco, Cal. The company is also putting in very extensive new equipment in screens and conveyors which will increase its capacity and enable them to be ready at all times to supply all grades of concrete gravel, also road, roofing and topping gravel.

Busch-Sulzer Bros.-Diesel Engine Co., of St. Louis, Mo., has recently issued a 112-page book on the efficiency, construction, operation and fuel of the Diesel engine, and containing full information on its application in various lines of industry. Diesel installations in 26 states of the Union are described, accompanied by over 100 half-tone illustrations and drawings.

With the QUARRIES

Economical Operation of Quarry and Crushing Plant

Constructive Knowledge of Manager and Employees Valuable Asset in Installation of Improvements.

Frederick County, Md., is the home of a large number of lime plants and stone crushing operations. Frederick is the name of the county seat and in the outskirts of this city the M. J. Grove Lime Co.'s operations are located on a tract covering 300 acres.

In addition to the 11 agricultural lime kilns and the three building lime kilns at this place, there is an extensive stone crushing plant in connection with a quarry consisting of an almost unlimited supply of an exceptionally good quality of limestone. The limestone in this quarry runs in sheets or layers. These are quarried in the usual way; Ingersoll drills are used to provide the holes in which are placed dynamite for separating portions of the stone from the main body. The stone is separated in the quarry, the limestone being hauled to the kilns and the harder rock being elevated to the stone crusher.

There are five crushers used in the crushing plant. From the quarry the stone is elevated a distance of 100 feet over an inclined track to an Austin No. 8 crusher. Immediately below this crusher are two of small proportions and on a still lower layer are two additional crushers of even smaller dimensions.

BLASTING ROCK IN A SECTION OF THE M. J. GROVE LIME CO.'S QUARRY AT FREDERICK.

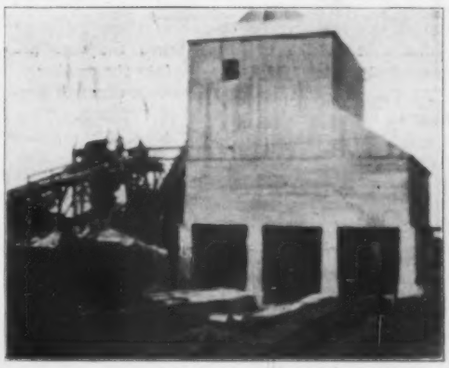
UNLOADING STONE FROM QUARRY CARS DIRECTLY INTO THE AUSTIN NO. 8 CRUSHER. THE CENTRAL FIGURE IS J. H. GROVE.

Concrete Bin Built by Manager and Superintendent.

From the crushers the stone is elevated by means of a bucket conveyor to the bin where it is separated and distributed according to size. The plant is equipped to make any kind of stone from 40 mesh to the inch to ballast rock. The bin, which is built entirely of concrete, is equipped to hold 1,200 tons of stone. This bin was designed and built by Mr. Grove and his superintendent, Mr. Charles F. Main. Neither engineer nor architect was consulted. Work on the structure was started on Dec. 28, 1913, and in less than four months' time the plant was in operation, the first load of rock being crushed and stored on April 10 of this year. No one but employees was employed on the construction work.

In addition to furnishing stone for railroad work the M. J. Grove Lime Co. disposes of a good deal of its crushed rock through building material retailers, a large precentage of it being sold through the Grove Lime & Coal Co., of Washington, D. C.

This is only one of the operations of the M. J. Grove Lime Co., another being located at Stevens City, W. Va., where a large plant is daily manufacturing a good supply of lime. This lime is used for building purposes only. At Lime Kiln, Md., a plant which has been in operation for a number of years is manufacturing agricultural lime. The Grove Lime & Coal Co., of Washington, is a part of the M. J. Grove Lime Co.'s operations, as well as the plant at Frederick.



CONCRETE BIN AND CRUSHING PLANT AT FREDERICK.

Mr. Edward Grove is in charge of the plant at Stevens City. Messrs. Will and Eugene Grove are located at Lime Kiln, B. L. Grove is secretary-treasurer and manager of the Grove Lime & Coal Co. at Washington and J. H. Grove is manager of the Frederick plant. "Harry," as he is known to all of his friends and business associates, is a popular man in Frederick. He is known to practically every inhabitant of the place and is a genuine booster for Frederick products. In addition to having a complete knowledge of the manufacture and use of lime as well as many other building materials, he is an ardent baseball enthusiast—and he knows the game. Whenever the home team is at Frederick "Harry" is "on the firing line."

The plant at Frederick has been operated by the Grove family for 22 years and a number of the kilns, if they could speak, would tell interesting

stories of the manufacture of lime, even previous to that time.

Tracks Used Judiciously.

The entire bed of the quarry is faced with tracks, Mr. Grove believing that great economy results from having the cars in close proximity to that part of the quarry which is being worked. By having cars run in every direction and extending the tracks as often as necessary the stone from this quarry is loaded directly to the cars. These are hauled by mules to the bottom of the incline and from there elevated to the crushers by cables. Two sets of incline tracks are used to haul the rock to the top of the crushing plant, one of these being on either side of the crusher. When the cars are dumped the stone is fed directly into the crusher.

At the present time the Frederick plant is running to capacity with a force of 200 men. They are equipped to turn out 1,500 tons of stone and 3,500 bushels of lime per day. The building lime is burned entirely with wood and the capacity of the three kilns is 1,000 bushels in 24 hours. Coal is used in connection with the agricultural lime kilns of which there are 11 and which have a capacity of 2,500 tons in 12 hours.

The plant is on a branch line of the Baltimore & Ohio railroad and "Grove Station" is a flag stop located on the Grove property.

Quarries and Crushers Swamped With Orders.

Road Making and Concrete Work of All Kinds—Speed Company Operates Own Commissary.

Louisville, Ky., Aug. 19.—Road making and concrete work has been active in the Louisville district this season, as well as in Southern Indiana and all through Kentucky, and the crushers have had about all of the business that could conveniently be handled. Prices are holding steady and competition has not been overly strong, as there was work enough to go around.

The R. B. Tyler Co. has been operating its crusher to capacity for several weeks past. Practically all of the rock is being used in Jefferson county. The total output for July was 260 cars, which ran all sizes. Business has been even better during August.

Some of the road-making companies are operating portable crushers in vicinities where rock is plentiful. A large crusher was used last season in making the Preston street road. Labor in the outlying or "Hill Billy" districts is generally easy to obtain at low prices.

The J. B. Speed Co. operates commissary stores at Middletown, and Speeds, Ind., where the company has rock and cement plants. It has been found to be an excellent plan in many ways. In the first place, the stores are not operated for profit and are doing well if they make expenses, as the goods are sold for very little over cost. The company owns all of the land in the vicinity of the plant and store, however, and the colonies of employees and their families do not find it necessary to go to neighboring villages for supplies. The people are better satisfied, stay sober and are therefore more industrious.

Kansas Road Building on the Increase.

Kansas City, Mo., Aug. 19.—An increasing use of rock dust as a substitute for sand is reported in Kansas City. E. S. Thompson, office manager of the O'Connor Rock Crusher Co., says the dust is popular for surfacing tennis courts and that there is a strong demand for it for use on oiled streets and roads. The company had early this week a surplus of 3,000 yards on hand, which was quickly being removed for the purposes stated.

The Jas. O'Connor & Son Crusher Co. secured the contract in competitive bidding recently for macadamizing the Manchester road from Seventeenth to Twenty-third streets, about half a mile from their crusher. The rock used they get at their own crusher, with a short haul, and no intermediate distribution of profit.

The James & Frisbie Crusher Co., in Argentine, Kan., near Kansas City, recently installed a No. 4 gyratory crusher, and the firm is reported to be doing a nice business.

The Rosedale Crushed Stone Co. has recently installed a No. 6 Symons gyratory crusher in addition to their No. 5 Symons and 36 disc, which makes their plant one of the most complete in this section. The capacity is now 1,000 cubic yards a day.

G. A. Waggoner is crushing ballast on the St. Joe Electric line with a Symons No. 5, mounted, and outfit.

INDIANA STONE MEN MEET.

The regular monthly meeting of the Indiana Crushed Stone Association was held Thursday, Aug. 13, 2:30 p. m., at the office of the secretary, Indianapolis. The following officers and members were present:

E. B. Taylor, vice-president, Greencastle.
R. N. Van Winkle, treasurer, Indianapolis.
E. T. Milligan, director, Muncie.

"INGERSOLL" DRILL IN OPERATION AT THE M. J. GROVE LIME CO.'S QUARRY. CHAS. CLINGEN, QUARRY FOREMAN, IS SHOWN TO THE LEFT. ROY BRIGHTELL IS THE DRILLER.

A. B. Meyer, Indianapolis.
L. B. Hodgin, Kokomo.
W. M. Forman, Jr., Louisville, Ky.
R. E. Greely, St. Paul.
B. A. Dickson, Monon.
Judge Darrow, Kentland.
V. G. Pogue, Indianapolis.

An unusual interest was displayed by the different members present, in recognizing the good work accomplished by the association.

In the evening the committee on road specifications dined at the Columbia club with some experienced road builders, after which a discussion followed on road building, in an effort to get the most ideal specifications for water bound macadam and bituminous macadam roadways.

At the present time the specifications are being tabulated and revised by the Indiana Crushed Stone Association, which expects to have them completed in a very short time. When completed they will be pleased to furnish them to county engineers, county commissioners, and county road superintendents, hoping that they will be of some assistance to them.

The Menke Stone & Lime Co., of Quincy, Ill., who are also extensive concrete contractors, have been awarded a large contract for constructing concrete sidewalks on the north side of the city, as provided by the recent acts of the council.

Application will be made for a charter for a new concern in the building material line to be known as the American Slag Co., Philadelphia, Pa., whose object and character shall be buying, selling, preparing, crushing, manufacturing, handling, and dealing in stone, slag, and like products. The incorporators are Joseph D. Morelli and Emanuel Nagelli, Jr.

A giant blast was made in the quarries of the Green Lane Trap Rock Company, when 17,000 tons of rock were loosened by 1,600 pounds of dynamite. The company has a daily capacity of 500 tons, which means that this single blast will keep them busy for exactly 34 days. The stone will be used chiefly for road building, concreting and fireproofing, and is said to be absolutely fireproof. The stone is exceptionally light (2,400 pounds per cubic yard) and absorbs very little water.

The Trap Rock Crushing Co., have begun operations at New Richmond, Wis., upon a very extensive scale. Three big hole drills have been installed, two dinkey locomotives, and 40 side dump cars, and a big steam shovel have been put into operation. The company has the big ballast contract with the Soo Railroal and they are providing large quantities of road building material for which the Trap Rock is a very superior material. The raw material is obtained from a huge natural cliff of rock which carries no stripping with it so that the primary operation consists of shooting down the rock and scooping it up by machinery.

The Liberal Stone & Brick Co. has been organized under the laws of Indiana, with a capital stock of $500,000, of which over $26,000 is to be used in Missouri. The main office will be in Kansas City, Mo. Preliminary steps looking to the establishment of a large plant near the Missouri river, north of Independence, Mo., have been made. The deposit consists mostly of hills filled with stone suitable for cement manufacture or building purposes and clay suitable for brick manufacture. Steve Sedweek, of Kansas City, is interested in the plant, it is said, and recently stated that rock crushing would begin within a very short time and that ultimately the plant would probably employ from 250 to 300 men.

PARCEL POST CARRIED ON DIAMOND TIRES.

Uncle Sam's parcel post automobiles all over the country now are running on "Diamond" tires, which won the government's award against all competitors recently.

The expansion of the parcel post field to include heavier shipments than were originally planned brought the post office department face to face with the problem of automobile transportation. In many cases good sized trucks are used to handle the great variety of goods which the new post office system carries.

"Diamond" tires were chosen on the basis of quality and price. The unsurpassed "Diamond" ability to do hard work with least wear, coupled with the now world famous "Diamond" prices, brought the award.

GYPSUM PRODUCTS

The Production of Gypsum

The gypsum industry is growing at a healthy rate. In 1903 a little over 1,000,000 tons of crude gypsum were mined, in 1913 the production was well over 2,500,000 tons. In 10 years the production has fallen short of that of the preceding year only three times, the greatest setback being in 1904, when the production as reported was more than 100,000 tons less than that of 1903.

Crude gypsum mined in the United States, 1880-1913.

	Short tons.		Short tons.		Short tons.
1880	90,000	1892	256,259	1904	940,917
1881	85,000	1893	253,615	1905	1,043,202
1882	100,000	1894	239,312	1906	1,540,585
1883	90,000	1895	265,503	1907	1,751,748
1884	90,000	1896	224,254	1908	1,721,829
1885	90,405	1897	288,982	1909	2,252,785
1886	95,250	1898	291,638	1910	2,379,057
1887	95,000	1899	486,235	1911	2,323,970
1888	110,000	1900	594,462	1912	2,500,757
1889	267,769	1901	633,791	1913	2,599,508
1890	182,995	1902	816,478		
1891	208,126	1903	1,041,704		

The number of short tons of raw gypsum mined in 1913 was 2,599,508, an increase of 98,751 tons over the 2,500,757 tons mined in 1912. The gypsum sold without calcining and used principally as an ingredient in Portland cement and in paint, and as land plaster, amounting to 463,136 short tons, valued at $697,066, showed an increase in quantity of 21,528 tons and in value of $73,544, as compared with 441,608 short tons, valued at $623,522, in 1912; and the material calcined for plaster increased in quantity 42,175 short tons and in value $137,370. The total value of gypsum and gypsum products produced in 1913 was $6,774,822, as compared with $6,563,908 in 1912, an increase of $210,914.

Gypsum imported and entered for consumption in the United States, 1909-1913, in short tons.

Year.	Unground.		Ground or calcined.		Value of manufactured plaster of Paris.	Total value.
	Quantity.	Value.	Quantity.	Value.		
1909	399,160	$376,780	3,437	$21,709	$26,648	$425,137
1910	415,321	444,263	2,414	15,072	42,776	502,111
1911	390,874	413,119	258	2,353	34,334	450,806
1912	412,997	430,183	3,702	18,709	36,809	485,681
1913	447,383	473,594	4,542	31,277	82,051	586,922

Gypsum was producted in 18 States and in Alaska. Eighty-two quarries or mines were worked. The total number of mills reporting in 1913 was 67. This includes mills using domestic material that calcined plaster as well as those that ground raw gypsum for land plaster and for other purposes. New York was the largest producer of raw gypsum; Iowa ranked second; and Michigan was third. Sales of gypsum products are credited to Illinois, Minnesota, Washington, and Wisconsin, although these States are not producers. This is rendered necessary by the trend of the gypsum industry toward assembling calcined gypsum, retarder, fiber, sand, etc., and preparing plasters for the market at local mixing mills from which they may be more readily and economically distributed to the trade territory. Sales made from mixing plants as reported to the Survey are credited to the State in which the warehouse is located.

The quantity or raw gypsum ground and sold for land plaster amounted to 54,815 short tons, valued at $95,953, in 1913, compared with 53,065 tons, valued at $107,058, in 1912, an increase in quantity of 1,750 short tons and a decrease in value of $11,105. The average price per ton at the mills received for land plaster was reported to be $1.75 in 1913, compared with $2.02 in 1912, $1.85 in 1911, and $2.05 in 1910. The quantity of raw gypsum sold for the manufacture of paint, for Portland cement, for bedding plate glass, and for various other purposes, amounted to 408,321 short tons, valued at $601,113, in 1913, compared with 388,543 short tons, valued at $516,464, in 1912, an increase in quantity of 19,778 tons and in value of $84,649. The average price of this class of products in 1913 was $1.47 per ton, compared with $1.33 in 1912, and with $1.47 in 1911. The average price of calcined gypsum products, including wall plasters, plaster of Paris, Keene's cement, and dental plaster was $3.43 per ton, the same as in 1912.

The quantity sold crude for land plaster has remained nearly the same for four years, but the average value per ton dropped 27 cents in 1913, or from $2.02 to $1.75. As 88 per cent of gypsum sold crude in 1913 was used for Portland cement, the average price per ton of all crude gypsum—$1.51—is close to that of the gypsum sold for Portland cement. The considerable decrease in the average price of land plaster is more than counterbalanced by the slight increase in value of the larger item.

Marketed production of gypsum in the United States, 1909-1913, in short tons.

Year.	Sold without calcining.			Sold as calcined plaster.			Total value.
	Quantity.	Value.	Average price per ton.	Quantity.	Value.	Average price per ton.	
1909	341,865	$568,570	$1.62	1,514,087	$5,354,229	$3.54	$5,906,738
1910	421,920	660,407	1.60	1,583,069	5,863,532	3.70	6,523,939
1911	387,460	589,479	1.52	1,596,418	5,872,556	3.67	6,462,035
1912	441,608	623,522	1.41	1,731,674	5,940,386	3.43	6,563,908
1913	463,136	697,066	1.51	1,773,849	6,077,756	3.43	6,774,822

Although the sale of calcined gypsum for dental plaster and to glass factories was 15,546 tons less in 1913 than in 1912, and that used as plaster of Paris, wall plaster, etc., increased only 1,740 tons, that sold for Portland cement and other purposes was 55,981 tons more than in 1912. The total increase in calcined gypsum sold in 1913 over that sold in 1912 was 42,175 tons. The average price per ton remained the same, $3.43. It is interesting to note that nearly 95 per cent of the calcined gypsum sold in the United States, or 1,680,157 tons, is used for wall plaster, Keene's cement, plaster of Paris, etc. About one and one-quarter million tons of this quantity represents mixed wall plaster.

Production of gypsum in the United States by uses, in short tons.

1913.

Alaska, Arizona, Colorado, Illinois,[a] Minnesota,[a] Montana, Nevada, Oregon, South Dakota, Utah, Virginia, Washington,[a] Wisconsin[a]	16	386,788	17,130	$25,626	54,870	$136,177	265,780	$1,336,076	$1,526,875
California	5	49,015	6,208	15,700	18,211	47,166	39,690	168,070	230,936
Iowa	5	466,081	5,757	10,266	43,300	36,286	333,357	1,112,389	1,157,969
Kansas	6	116,516	(b)	(b)	[c]32,096	26,992	64,236	281,316	308,308
Michigan	5	422,390	9,604	10,282	51,163	46,747	275,368	665,350	721,325
New Mexico	3	41,190			(d)	(d)	[e]39,532	102,564	102,564
New York	7	599,027	9,418	17,282	170,084	289,723	282,187	1,003,744	1,280,699
Ohio	4	264,863	(b)	(b)	[c]7,174	11,703	206,421	683,356	696,149
Oklahoma	8	147,670	(b)	(b)	[c]12,093	10,723	116,418	319,693	330,416
Texas	5	161,090	(d)	(d)	(d)	(d)	[e]133,946	345,749	345,749
Wyoming	2	39,032					25,433	74,882	74,882
Total	67	2,599,508	54,815	95,953	408,321	601,113	1,773,849	6,077,756	6,774,822

[a] Produces no crude gypsum.
[b] Included with crude gypsum for Portland cement, etc.
[c] Includes some land plaster.
[d] Included with calcined gypsum.
[e] Includes some crude gypsum.

Imports.

Gypsum imported into the United States comes almost wholly from Nova Scotia and New Brunswick and enters the ports of New England and North Atlantic States, over one-half of it entering the port of New York.

A marked advance in the quantity and value of imports was made in 1913. There was an increase of 34,686 tons of unground gypsum as compared with an increase of 22,283 tons in 1912, the total importation of unground gypsum in 1913 being 447,383 short tons, valued at $473,594. The figures give an average value per ton of unground gypsum of $1.058, or about 2 cents a ton higher than in 1912.

The quantity of ground or calcined gypsum imported is very small.

Philadelphia Outlook is Encouraging.

Great Amount of Building Calls for Large Total of Material—Plants Operating to Full Capacity.

Philadelphia, Pa., Aug. 18.—Business with the manufacturers and distributors of gypsum products throughout the eastern section of Pennsylvania is now moving in a materially improved manner. New work is opening up throughout this vicinity and in the adjacent sections of New Jersey and Delaware,

(Continued on page 48.)

Marketed production of gypsum in the United States, 1909-1913, by uses, in short tons.

Year.	Sold crude.														
	For Portland cement.			As land plaster.			For paint material.			For other purposes.			Total.		
	Quantity.	Value.	Average price per ton.	Quantity.	Value.	Average price per ton.	Quantity.	Value.	Average price per ton.	Quantity.	Value.	Average price per ton.	Quantity.	Value.	Average price per ton.
1909	260,433	$402,830	$1.55	40,581	$108,695	$2.69	(a)	(a)		[a]31,841	$45,984	$1.44	341,865	$552,509	$1.62
1910	334,815	522,693	1.56	53,815	110,326	2.05	1,297	$2,386	$1.84	31,902	34,003	1.07	421,920	669,407	1.59
1911	327,953	484,373	1.48	52,880	97,573	1.85	(a)	(a)		[a]6,647	7,522	1.13	387,460	589,479	1.52
1912	382,952	509,400	1.33	53,065	107,068	2.02	(a)	(a)		[a]5,591	7,064	1.26	441,608	623,522	1.41
1913	408,221	600,913	1.47	54,815	95,953	1.75	(a)	(a)		100	200	2.00	463,136	697,066	1.51

Year.	Sold calcined.														
	As plaster of Paris, wall plaster, Keene's cement, etc.			For dental plaster			To glass factories.			For Portland cement and other purposes.			Total.		
	Quantity.	Value.	Average price per ton.	Quantity	Value.	Average price per ton.	Quantity.	Value.	Average price per ton.	Quantity	Value.	Average price per ton.	Quantity.	Value.	Average price per ton.
1909	[b]1,441,434	$5,143,984	$3.57	(b)	(b)		13,869	$35,208	$2.54	58,734	$175,037	$2.98	1,514,087	$5,354,229	$3.54
1910	[b]1,483,046	5,599,353	3.78	115	$805	$7.00	15,942	29,185	1.83	84,565	224,189	2.65	1,583,669	5,853,532	3.70
1911	1,523,263	5,678,453	3.73	413	2,612	6.32	33,472	80,220	2.40	41,270	111,271	2.70	1,598,418	5,872,556	3.67
1912	1,678,417	5,805,999	3.46	[c]3,190	15,584	4.88	24,159	52,741	2.18	25,908	66,062	2.55	1,731,674	5,940,386	3.43
1913	1,680,157	5,858,785	3.49	891	4,186	4.84	10,942	21,707	1.98	81,889	193,098	2.36	1,773,849	6,077,756	3.43

[a] Paint material included under "For other purposes."
[b] Some dental plaster and other gypsum products included with plaster.
[c] Includes some casting plaster.

SAND and GRAVEL

Sand and Gravel Production

The total production of sand and gravel in the United States in 1913 reported directly to the United States Geological Survey was 79,555,849 short tons, valued at $24,217,508, a net increase in quantity of 11,201,286 short tons and in value of $1,104,300 over the production of 1912. Sand for building purposes constituted nearly one-third of the total production. In 1913 a production of 25,397,383 tons of building sand was recorded with a value of $8,007,949. This is an increase in quantity of 1,621,370 tons and in value of $39,822 over the production of 1912. The average value per ton, which increased from 31 cents in 1911 to 33½ cents in 1912, fell to 31½ cents in 1913.

Quantity and value of sand and gravel produced in the United States, 1904-1913, in short tons.

Years.	Quantity.	Value.
1904	10,679,728	ᵃ$5,748,099
1905	23,204,967	11,223,645
1906	32,932,002	12,698,208
1907	41,851,918	14,492,069
1908	37,216,044	13,270,032
1909	59,565,551	18,336,900
1910	69,410,436	21,037,630
1911	66,846,959	21,156,583
1912	68,354,561	23,113,208
1913	79,555,849	24,217,508

a Includes a very small quantity of gravel.

The production of gravel exceeded that of building sand by more than 13,000,000 tons. The total production of gravel in 1913 was 38,526,498 tons, valued at $8,842,811, or an increase in quantity of 8,754,913 tons and in value of $1,101,794 over the production of 1912. These figures show an average cost per ton of slightly less than 23 cents, or 3 cents less than the average value per ton of gravel in 1912. This large quantity of gravel was used for many purposes, including concrete, paving, filter beds, roofing, road making, and railroad ballast.

The entire report of the production of sand and gravel is necessarily incomplete because it is impracticable to attempt to get or to estimate the quantity of sand produced by the thousands of individuals who each year dig a small quantity for their own use. This production, of which there is no count or accounting, may average less than a ton for the individual producer, but the aggregate may be hundreds of thousands of tons. The figures each succeeding year should be nearer the actual production, as the list of producers is added to annually.

Imports.

Sand valued at $172,257 was imported into the United States in 1913, as compared with imports valued at $141,690 in 1912 and at $147,268 in 1911. This is largely building sand brought to the United States as ballast, or from Canada as a near source of supply, but it includes a small quantity of French molding sand which comes to this country barreled in lump and is here ground and pulverized before marketing.

Type "C" Universal Excavator.

During the last few years drag scrapers have been used very successfully for excavating sand and gravel both below water level and in the dry, and delivering the same into storage piles, the head of a washing plant or into loading bunkers.

One of the first concerns to appreciate the merits of the drag line cableway excavator was the J. C. Buckbee Co., engineers, of Chicago, Ill., who began

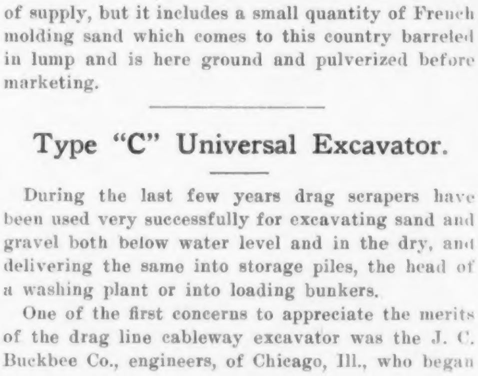


FIG. 1.—TYPE "C" UNIVERSAL EXCAVATOR BUCKET AND TROLLEY.

experimenting with the machines, producing a very satisfactory automatic dumping scraper bucket and trolley, which has since been further improved. This company's machine is known as their Type "C" Universal Cableway Excavator, and the main features of the bucket and trolley are clearly shown by Fig. 1, from which it will be apparent that this bucket and trolley are of most rugged and simple construction, therefore capable of hard, continuous service with minimum repairs.

The action of the dumping mechanism is absolutely positive and there are no hooks, latches nor

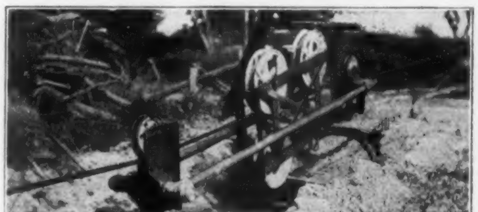


FIG. 2.—BUCKET DIGGING.

springs to give way at unexpected moments, resulting in accidents or serious delays. The bucket of this excavator is designed to dig with a minimum amount of power and to discharge its load readily and completely on reaching the dumping point. The bucket is provided with readily renewable parts at points where the greatest wear comes; or, in other words, the body of the bucket is rendered very long lived by providing readily renewable wearing parts.

The wheels of the trolley are babbitted and arranged for oiling with grease cups, so that the tendencies of the lubricating devices are to force out any dirt that may get into the bearings. The use of the babbitted bearing also permits repairs to be readily made in the field.

A very unique device set between the wheels of the trolley constantly distributes black oil on the track cable, thus lubricating the same and greatly increasing the life of the cable, as well as the trolley wheel.

J. C. Buckbee Co. has furnished a number of excavators with structural steel masts, some of which have been over 100 feet in height, and they are now recommending these structural steel masts for all installations.

The company is also placing upon the market a special electric hoist designed for use with the excavators,

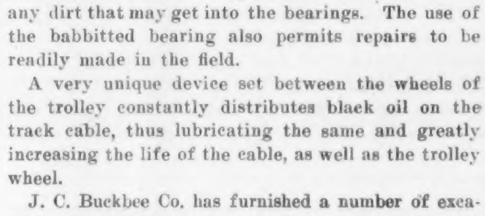


FIG. 3.—BUCKET DUMPING.

this machine being illustrated by Figure 2, in which a most substantial and simple hoist is furnished, which can be relied upon for hard, continuous service. The frame of this hoist is made of very heavy steel I-beams. The gears throughout this hoist are of cast steel, with cut teeth, which makes a very smooth running machine as well as one of great durability. The machine is most heavily designed in all its parts. It will be appreciated that a very heavy, substantial hoist is necessary for continuous service, with minimum repairs, in these drag line excavators, as the pull on the same is unusually heavy and the speed of operation very high.

(Continued on page 48.)

Statistics of the production of sand and gravel in the United States in 1913, in short tons.

State.	Glass sand.		Molding sand.		Building sand.		Grinding and polishing sand.		Fire and furnace sand.		Engine sand.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Alabama			57,798	$22,368	228,346	$90,347	25,905	$11,118				
Arizona					(a)	(a)						
Arkansas			1,214	708	42,914	16,272						
California	(a)	(a)	(a)	(a)	321,777	122,278	35,530	8,880	4,958	$3,671	66,396	$13,096
Colorado			12,781	4,454	39,651	10,460	(a)	(a)			6,001	2,996
Connecticut			(a)	(a)	16,578	5,150						
Delaware			(a)	(a)	(a)	(a)			(a)	(a)		
District of Columbia												
Florida			(a)	(a)	(a)	(a)						
Georgia	(a)	(a)	6,500	4,919	355,280	132,381	(a)	(a)	(a)	(a)	2,700	650
Hawaii					(a)	(a)						
Idaho												
Illinois	350,229	$239,227	404,717	181,794	2,299,834	594,687	42,198	23,138	84,801	43,269	79,568	11,166
Indiana	1,842	1,861	189,446	88,140	1,756,596	418,418	43,620	6,008			57,040	9,878
Iowa			2,977	1,560	794,219	231,784			6,000	2,400	15,509	3,162
Kansas			(a)	(a)	649,646	175,387					(a)	(a)
Kentucky	(a)	(a)	32,981	25,316	391,021	187,993	1,131	873	7,079	4,351	4,177	2,785
Louisiana					185,769	29,177					(a)	(a)
Maine					(a)	(a)						
Maryland	(a)	(a)	10,086	5,276	421,538	192,670	(a)	(a)			20,723	18,224
Massachusetts	(a)	(a)	17,236	7,490	123,388	44,738	(a)	(a)	7,800	6,825		
Michigan	2,938	3,030	50,763	17,493	1,326,016	415,737	(a)	(a)	(a)	(a)	4,447	647
Minnesota			15,364	6,249	433,093	113,904	6,217	2,145			2,916	589
Mississippi			4,920	1,115	204,592	70,104					11,642	2,194
Missouri	130,676	91,284	132,415	63,695	1,585,168	526,912	124,583	63,665	31,800	11,076	21,100	3,700
Montana					(a)	(a)						
Nebraska					665,854	118,255					44,743	7,366
Nevada					(a)	(a)					(a)	(a)
New Hampshire												
New Jersey	108,560	82,577	503,648	285,677	1,666,057	369,973	21,379	14,803	95,889	87,580	57,133	22,626
New Mexico			(a)	(a)								
New York	35,514	31,416	507,263	427,721	4,842,073	1,341,257	55,591	22,767	27,596	14,407	19,806	8,358
North Carolina			(a)	(a)	74,650	25,166	(a)	(a)			(a)	(a)
North Dakota					7,815	5,354						
Ohio	73,154	65,892	731,706	494,342	1,771,233	658,227	21,781	25,948	116,563	90,881	73,031	31,731
Oklahoma					81,125	20,578					11,892	2,424
Oregon					232,959	132,407						
Pennsylvania	513,987	674,073	730,224	505,334	2,298,640	987,810	[illegible]1,711	346,685	115,672	90,087	216,151	127,957
South Carolina	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)				

CLAY PRODUCTS

Billion Bricks Handled in Chicago.

City Produces Nine-Tenths of This Number in Its Own Clay Products Plants.

One billion bricks are handled in Chicago every year. This figure takes into consideration the amount of face brick used in building construction and the amount of common brick manufactured, used, and shipped to nearby points.

Between 900,000,000 and 950,000,000 common building brick are manufactured each year in the Chicago district. The Illinois Brick Co., the largest single manufacturer, turns out on an average of 500,000,000 of the clay oblongs annually.

The largest percentage of this brick is used in the city, but part of it is shipped to Wisconsin, Iowa, Indiana, Michigan, and points in Illinois within a radius of 300 miles.

Leading Market for Pressed Brick.

There is practically no face brick made in or nearer than fifty miles of the city on account of the poor quality of clay. Despite this fact Chicago probably is the largest market for pressed brick in the country. There is an enormous amount of brick used in New York each year, but on account of the high class of common brick which can be made from the dark red clay in that section many builders use the common brick for exteriors as well as for inside wall construction. The class of common brick made in the Chicago vicinity is light in color, and for this reason cannot be used for exteriors. Accordingly, the demand for face brick is very large, especially in the construction of residences, apartment buildings, and factories.

About 90,000,000 face brick are used in Cook county each year. Ten per cent as many face brick are used as common brick. On large structures but little face brick is used in comparison with the other, because of stone and terra cotta trimmings. The annual business of the face brick market in Chicago approximates $2,000,000.

Brick manufacturers look forward to an unusually heavy fall trade. The Chicago factories are working to capacity now.

Terra Cotta Market Dull.

Just the opposite is the condition of the terra cotta business. Terra cotta manufacturing concerns are passing through a slump in business for the reason that they have filled contracts for material to be used on all large buildings now under way in the city and have not yet received orders for materials to be used on structures to be built in the near future.

A very large amount of terra cotta is being used in construction work now for exteriors of large structures instead of stone. One of the greatest points in its favor is the fact that it can be cleaned of the soot and dirt easily.

Clay Products in Canada.

The total production of paving brick and paving blocks in Canada in 1912 was reported as 4,579,500, valued at $85,989, or an average value per thousand of $18.78, as compared with a production of 5,220,400, valued at $79,444, or an average value of $15.22 per thousand in 1911. This paving brick is made chiefly at West Toronto, Ontario, from shale obtained from the banks of the Humber river, although during 1912 there was also a small production reported at Pender Island, near Vancouver, B. C. The annual production has for a number of years varied from 3,000,000 to over 5,000,000 per season, and the output finds a market chiefly in Toronto.

Fire Brick.

There are a number of clays from different localities in Canada that have been used in the manufacture of refractory brick or fire brick and for furnace linings, etc., which have been usually termed fire clays. These include clays found with the coal measures at Westville, N. S., and at Comox, Vancouver Island, also clays found south of Moose Jaw, Sask., and at Clayburn, near Vancouver, B. C. Stove linings and other refractory clay products are made in Ontario and Quebec from imported clays. The total value of the sales of fire clay, fire brick and fireclay products in 1912 was $125,585 as compared with $89,130 in 1911 and $50,215 in 1910.

Sewer Pipe.

The total value of the sales of sewer pipe in 1912 was $884,641, as compared with a value of $812,716 in 1911, and a value of $774,910 in 1910. About 54 per cent of the production in 1912 was made in Ontario, according to returns received by J. McLeish, of the Department of Mines.

Drain Tile.

The total value of sales of drain pipe in Canada in 1912, as reported to this branch, was $357,862, as compared with $339,812 in 1911, and $370,008 in 1910. The greater part of this production is in Ontario; the sales in this province in 1912 were valued at $308,050, as against a value of $300,029 in 1911, and $334,402 in 1910.

The Schaffer Semi-Continuous Kiln System.

The Schaffer semi-continuous kiln system applied to the regular round down-draft kilns makes their operation continuous. This system consist of an overhead duct and an underground tunnel, arranged in such a manner as to give practically the same fuel saving as the regular continuous kiln.

The underground tunnel is practically the same as is commonly used to carry the gases from the bottom of the kiln to stack, but instead is carried under the next kiln in line and connects to the bottom of this kiln, also each succeeding kiln, with a damper placed between each one. The overhead duct is connected to each kiln through an opening in the crown with a damper at each opening.

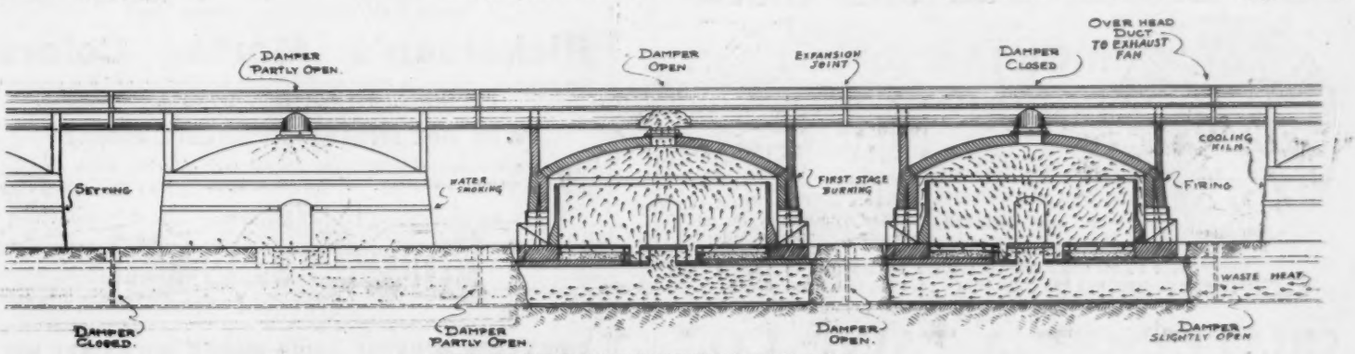
The hot gases which escape ordinarily through the stack are carried to the next kiln in line, entering at the bottom. It is deflected so as to distribute evenly among the ware. It then takes an upward course through the ware and passes off through the opening in the center of the crown into the overhead duct, which connects to either a fan or stack.

When a kiln is being fired, the damper in the crown is closed and the damper in the underground tunnel between it, and the kiln previously finished is closed, and the damper between the kiln being fired and the next kiln in line, and also the damper at the connection of overhead duct, at this kiln is opened. The damper between this kiln and the kiln next in line is closed.

As soon as second kiln ahead of one being fired has been set and ready for heat, the damper between this kiln and kiln being fired, as well as the overhead damper, is slightly opened, admitting a small amount of heat, which can be regulated to suit condition of ware. The damper between this kiln and the next one in line is closed. As soon as the kiln which is being fired is finished, transfers ahead are made in the same order.

The heat from the cooling kiln can be carried through the underground tunnel in the same manner as the gases from the burning kilns and the speed at which this heat is removed from the cooling kiln is regulated by the damper in the underground tunnel. By this system the waste heat is obviously utilized by passing the heated gases to the next kiln ahead instead of into the air.

Owing to the heat first entering at the bottom of the kiln, the water smoke is carried up through the ware instead of down. The advantage of this



THE SCHAFER SEMI-CONTINUOUS KILN SYSTEM.

is that it will meet with less resistance, the bottom brick will not become softened by moisture from the water smoking condensing on them which causes kiln marking and warping of the brick.

The kiln will be heated to 1,200 to 1,500 degrees, and will have a higher temperature at the bottom of the kiln than at the top. When fires are started in kiln it will not be necessary to form pressure at top of kiln sufficient to force heat down through damp green ware and damp flues to stack. The heat will be readily distributed, and an even temperature maintained throughout the kiln.

This system can be applied to existing round down-draft kilns, as well as new ones for a comparatively small investment.

Louisville Brick in Brisk Demand.

Nearly All Plants Are Running Full Tilt—Bannon Company to Market Salt Glazed Face Brick.

Louisville, Ky., August 19.—Louisville brick manufacturers have been extremely busy this season and are running full tilt. Although a number of small residences have been erected, foundation work and chimney building took considerable brick. No large manufacturing plants of any consequence or warehouses have been built, but the local firms have had all the business they could handle and very little opposition has been felt from outside towns.

The P. Bannon Pipe Co. is the first of the Louisville brick manufacturing concerns to depart from common hard brick, and is now marketing for the first time a salt glazed face brick. This brick has been experimented on for some time, but never put on the market until now. The first run of the new bricks will amount to 300,000 and the trade is taking kindly to them. Several large orders have been placed so far and the plant will probably be taxed to handle the first year's run. The local contractors and supply men at present have to depend on the outside manufacturing plants for all fine brick.

The Louisville Fire Brick Co. is working out a number of improvements which have been contemplated for some time. A new kiln is being erected at the Louisville plant and another at the plant at Grahn, Carter county, Ky. Both kilns are of 50,000 capacity. Business has been good for some time, but is expected to improve a good deal, as the railroads will be large users of iron during the next few months, as a consequence of the recent five per cent raise in freight rates in the middle Western section of the country. A number of the smelters have not been overly active, but with resumed activity in the iron industry the demand for fire brick for furnace building should pick up rapidly.

Joe Nevin, manager of the Louisville Brick Co., said that business had been fairly good but that the plant had not been rushed at any time this season. The orders have generally been for small quantities which could be easily supplied.

The plant of the Hillenbrand Brick Manufacturing Co. has been closed for a few days in order to facilitate rebuilding of the clay sheds, which were recently blown down by a small tornado that hit Louisville late one evening. The work is about completed and the mill will start up again shortly. Deliveries of stock on hand have not been interrupted. An order for 200,000 hard common and face brick for the St. Elizabeth church, one of the largest contracts of the season in the local market, has been secured and will keep the teams busy for some time. Andrew Hillenbrand, president of the company, recently injured his leg and was laid up for three weeks. The limb was hurt badly in 1893 in an accident, and any little strain lays him off for a few days.

F. Moser, manager of the Louisville Sewer Pipe Co., reports that the early part of the year has been very good and that he is expecting a better wind-up. A $25,000 sewer to be built in Oakdale, Ky., will be one of the largest local jobs to be let for some time, and he is expecting to get a piece of the business.

Denny B. Goode, assistant manager of the Louisville Convention and Publicity League, is working on a plan to have the National Brick Manufacturers' Association hold its next convention in Louisville. The convention was held in Louisville a few years ago and was a very successful one, but ran into very large cost figures. The league has sent out letters to all of the local brick men asking their opinion on the subject, and it seems to be receiving favorable comment from the brick men. Nothing definite has been decided upon so far.

PHILADELPHIA OUTLOOK ENCOURAGING.

(Continued from page 45.)

most actively. Many of the larger buildings, and for which considerable quantities of gypsum block, wall partition and plaster will be needed have reached that stage in their construction where the interior or finishing work may be started. Aside from the amount of this material being required for the larger buildings the current demand on the local market has been stimulated greatly as a result of the large amount of building work which is going on in many of the suburban towns and outlying boroughs, in which numbers of residences and similarly proportioned structures are now undergoing erection. In practically all instances the plants of the gypsum manufacturers of this district are being operated to their full capacity, while in many cases a sufficient volume of business to keep the present activities running smoothly for some little time to come, is reported.

C. B. Fry, manager of the Keystone Plaster Co., 704 Perry building, when discussing business conditions here, said: "Business at present with us is very satisfactory and we expect this to continue for some time to come. We are now supplying and installing gypsum block partition for the new Finance building on South Penn square and several other large contracts which have been awarded to us." Mr. Fry also stated that the company is contemplating making extensive alterations to the plant in Chester, Pa.

BURCHFIELD TO MARKET WINCHESTER PRODUCT.

W. H. Burchfield, the active and energetic sand-lime brick expert, who has made "some" name for himself in the field of salesmanship of this particular brick, has taken up the work of selling the output of the Winchester Brick Co., with offices at 10 Tremont street, Boston, Mass.

The product of the Winchester Brick Co. is a very hard quality of sand-lime brick and Mr. Burchfield's job is to sell this brick throughout the Cosmopolitan district of greater Boston. Without a doubt such a building material in greater Boston is needed more than any other one building material, for as yet this district is full of wooden houses, and even new structures are being built of wood, which should go into more permanent construction if the material and the knowledge of such material were made more available; and "Burch" can be depended upon to bring this material to them in full measure to their benefit and his.

TYPE "C" UNIVERSAL EXCAVATOR.

(Continued from page 46.)

The J. C. Buckbee Co. has been steadily increasing the speed of operation of its excavators since the first machines were turned out, with a consequent greatly increased capacity. This has been made possible principally by greatly increasing the strength of all parts of their machines and by designing the special electric hoists referred to above for operating the excavators.

When one reflects that with the slack line cableway excavator it is possible to reach out a distance of 500 to 600 feet to get the load, convey and dump into a hopper or pile 50, 75, 100 or more feet above the ground line; that when these machines are operated with electric hoists but one man is required to handle them, it will be appreciated that they afford most economical means for a variety of different kinds of excavating work, and that the cost of doing such work with them is very low. While these machines were primarily designed for excavating gravel, they are now largely used for stripping purposes, reclaiming tailings, storing cement clinker, etc., and new uses are daily being found for them.

A curious freak of the recent hot weather in Louisville is shown on Lydia street, near Hoertz avenue, in Louisville. The expansive effect of the heat was so great that it caused the brick pavement to buckle and burst, it is said.

H. C. Brown, of Harlan, Ky., is installing a brick making plant in which he will manufacture brick for a number of buildings to be erected on Main street in that city. The clay of which the brick will be made will come from the sites on which the buildings are to stand, the operation serving to do all the excavating necessary.

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Faeberhill, Mfg. Co. (bag tyers).
Jaite Company, The.
Urschel Bates Valve Bag Co.
West Jersey Bag Co., The.

BELTING.
H. W. Caldwell & Co.
Chicago Belting Co.
Dull & Co., R. W.
B. F. Goodrich & Co.
Imperial Belting Co.
Stephens-Adamson Mfg. Co.
Webster Mfg. Company.
Weller Mfg. Co.

BRICK.
Belden Brick Co.
Hocking Valley Clay Co.
Metropolitan Paving Brick Co.

BRICK CLAMPS.
The P. D. Crane Co.

BRICK PAVING.
Alton Brick Co.
Harris Brick Co.
Metropolitan Paving Brick Co.
National Paving Brick Mfrs. Assoc.
Thornton Fire Brick Co.

BUCKETS, DUMPING AND GRAB.
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Hendrick Mfg. Co.
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Owen Bucket Co.
Willis Shaw Mchy. Co.

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CEMENT, PORTLAND.
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Carolina Portland Cement Co.
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Kansas City Portland Cement Co.
Lehigh Portland Cement Co.
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Phoenix Portland Cement Co.
Sandusky Portland Cement Co.
St. Louis Portland Cement Works.
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Premier Flooring & Material Co.

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DRAIN TILE.
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American Clay Co.
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Duff Patents Co., Inc.
Dull, Raymond W., & Co.
Fuller Engineering Co.
Grimsley, G. P.
Robt. W. Hunt & Co.
Improved Equipment Co.
Kirkpatrick, W. C.
Meade, R. K.
Nat'l Engineering Co.
Sauerman Bros.
Schaffer Eng. & Equip. Co.
Smidth & Co., F. L.
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Busch-Sulzer Bros.-Diesel Engine Co.
Jackson & Church Co.
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Indianapolis Cable Excavator Co.
McMyler-Interstate Co.
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Sauerman Bros.
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FIRE BRICK.
Carolina Portland Cement Co.
Evans Clay Mfg. Co.
Improved Equipment Co.
Mason City Brick & Tile Co.
Thornton Fire Brick Co.
Thompson-Armstrong Co.
Union Mining Co

FLUE LININGS.
Evans Clay Mfg. Co.
Thompson-Armstrong Co.

FURNACES FOR SPECIAL PURPOSES.
Improved Equipment Co.

GEARS.
Edgar Allen Amer. Mang. Steel Co.
Caldwell, H. W., & Son Co.
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Weller Mfg. Co.

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GYPSUM—PLASTER.
American Cement Plaster Co.
American Keene Cement Co.
Best Bros. Keene's Cement Co.
Cardiff Gypsum Co.
Carolina Portland Cement Co.
Kelly Plaster Co.
National Mortar & Supply Co.
Ohio & Western Lime Co.
Plymouth Gypsum Co.
U. S. Gypsum Co.
Wheeling Wall Plaster Co.

HAIR
Ohio & Western Lime Co.

HOISTS, ELECTRIC AND STEAM.
Buckbee Co., J. C.

HOLLOW CLAY TILE.
American Clay Co.
Mason City Brick & Tile Co.
Metropolitan Paving Brick Co.
Whitacre Fireproofing Co.

HYDRATING MCHY.
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LIME.
Carolina P. C. Co.
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Kelley Island Lime & Trans. Co.
Mitchell Lime Co.
The Moores Lime Co.
National Lime & Stone Co.
National Mortar & Supply Co.
Niagara Gypsum Co.
Ohio & Western Lime Co., The.
Owens & Son, John D.
Scioto Lime & Stone Co.
Security Cement & Lime Co.
Woodville Lime & Cement Co.

LIME, HYDRATED.
Hannibal Lime Co.
Kelley Island Lime & Transport Co.
Mitchell Lime Co.
The Moores Lime Co.
National Lime & Stone Co.
National Mortar & Supply Co.
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Jackson & Church.

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Johnston & Chapman Co.
McLanahan Stone Machine Co.
National Eng. Co.
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STEAM SHOVELS
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Thew Automatic Shovel Co.
Willis Shaw Mchy. Co.

SINK AND FLOAT TESTERS.
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STEAM SHOVEL TEETH.
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Taylor-Wharton Iron & Steel Co.

STUCCO RETARDER.
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TUBE MILLS.
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Schaffer Eng. & Equip. Co.
Sturtevant Mill Co.

WIRE AND WIRE FENCING.
American Steel & Wire Co.

WIRE ROPE.
American Steel & Wire Co.
Buckbee Co., J. C.

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